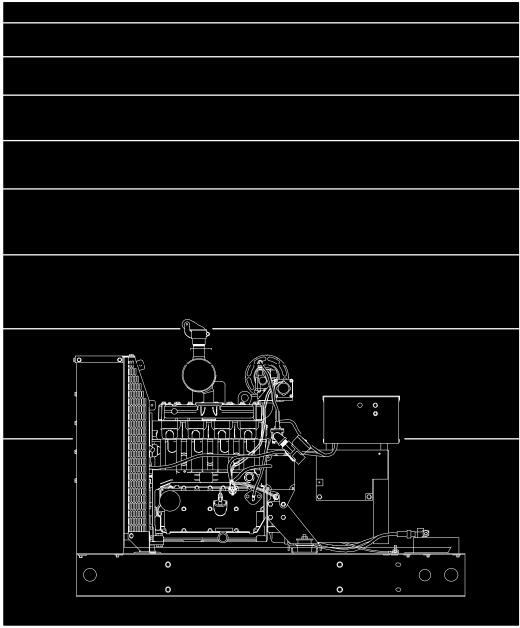


# **Parts Catalog**

# **GNAA GNAB GNAC**

# **Generator Set**



Printed in U.S.A.

967-0202B 12-99 (Spec A-B)

#### MODEL IDENTIFICATION

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Onan nameplate.

For handy reference, insert your nameplate information in the spaces below.

MODEL AND SPEC NO.

SERIAL NO.

DIGITAL CONTROL SOFTWARE VERSION AND DATE (IF APPLICABLE)

#### SAFETY PRECAUTIONS

The following symbols are used in Onan manuals to alert users to the potentially dangerous conditions relating to maintenance of equipment and replacement of parts. Please read and observe.

**▲ DANGER** 

This symbol warns of immediate hazards which will result in severe personal injury or death.

**△**WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

**△CAUTION** 

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or product or property damage.

#### PRODUCT SAFETY PRECAUTIONS

#### **△WARNING**

Service and repair of Onan equipment must be performed by trained, experienced personnel only. Improper service or repair may result in property damage, severe personal injury or death. Do not use this catalog as a guide to servicing your equipment. Read and follow the IMPORTANT SAFETY INSTRUCTIONS in the Service Manual appropriate for the equipment you are working on.

#### **△WARNING**

Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.

#### **△WARNING**

Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!

#### **△WARNING**

Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives or using solvents take all necessary precautions not to ingest, breathe the fumes or contact the liquids. Use adequate ventilation and wear protective gloves, masks and protective clothing!

#### Introduction

This parts catalog applies to the standard generator sets listed below. Parts are arranged in groups of related items and each illustrated part is defined by a reference number corresponding to the same reference number in the parts list. Parts illustrations are typical. Using the model and specification number from your generator set nameplate, select parts that apply to your set. Right and left sides are determined by facing the engine end (front) of the set.

#### **Generator Set Data Table**

Model Identification	Watts	Volts	Hertz	Wire	Phase	Battery Voltage
5.5GNAA/*	5500	Reconnectible	50	4/12	1/3	12V
7.0GNAA/*	7000	Reconnectible	60	4/12	1/3	12V
9.0GNAB/*	9000	Reconnectible	50	4/12	1/3	12V
11.5GNAB/*	11500	Reconnectible	60	4/12	1/3	12V
12.5GNAC/*	12500	Reconnectible	50	4/12	1/3	12V
16.0GNAC/*	16000	Reconnectible	60	4/12	1/3	12V

<sup>\* –</sup> The specification number denotes customer requested options or deviations from a standard (1A, 1B, etc.) model. The specification letter advances (A, to B, to C, etc.) with major manufacturing changes

Actuator, Electronic Governor, 24 Bracket, Engine Harness Terminal (Begin Spec B), 77 Bracket, Extended Oil Level Indicator, 39 Adapter, 25 Adapter, Brass, 25 Bracket, Fan Guard, 41 Adapter, Cylinder Head, 42 Bracket, Governor Actuator, 24 Adapter, Oil Filter, 9 Bracket, Governor Controller, 24 Adapter, Oil Pressure Switch, 11 Bracket, Heavy Duty A/C, 34 Adapter, Radiator Outlet Duct, 41 Bracket, Ignition Coil, 28 Alternator, 21, 22 Bracket, Lamp, 71 Ammeter, 71 Bracket, Mounting (Gauge Kit), 87 Ammeter, AC, 73 Bracket, Regulator Support, 25 Ammeter, Meter Panel (Manual/Remote), 68, 69 Bracket, Rotary Switch (Volt/Ammeter), 71 Armature, Starter, 29 Bracket, Terminal Block Mounting (Dectector Control), 47 Breaker, Circuit, 61, 63, 71, 73, 85 Baffle, Housing Front Duct, 53 Breaker, Circuit (Begin Spec B), 83 Band, Heavy Duty A/C Mounting, 34, 35 Breaker, Circuit (Manual/Remote Begin Spec B), 66 Barb, Coolant Heater Hose, 42 Breaker, Circuit (Manual/Remote Spec A), 65 Barb, Regulator Hose (Begin Spec B), 26 Breather, 31, 33 Base, Mounting, 47 Bulb, Panel Replacement Light, 76 Bearing, Connecting Rod Large, 13 Bushing, Low Coolant Switch, 41 Bearing, Connecting Rod Small End, 13 Bushing, Nylon, 63 Bearing, Crankshaft Center, 13 Bearing, Flywheel End Main, 13 Cable, Battery, 47 Bearing, Gear End Camshaft, 9 Cable, Control Heater, 59, 86 Bearing, Gear End Main, 9 Cable, Ground, 47, 81 Bearing, Generator Rotor Ball, 57 Camshaft, 14 Bearing, Starter (Commutator End), 29 Cap, Battery Breather, 47 Bearing, Starter (Pinion End), 29 Cap, Housing Rain, 50, 52 Belt, 21, 22 Cap, Muffler Rain, 44 Cap, Oil Fill, 9, 17, 19 Bend, Coolant Heater Hose, 42 Block, AC Detector Control Terminal, 71 Cap, Radiator, 41 Block, Control Harness Terminal, 71 Cap, Water Pump, 37 Block, Control Saddle Terminal, 81 Capacitor, Voltmeter, 73 Block, Cylinder, 9 Carburetor, 24 Block, DC Detector Control Terminal, 75 Carrier, Valve Spring, 17 Block, Detector Control Output Box Terminal, 85 Channel, Rubber, 71 Block, Dectector Control Terminal, 47 Circlip, Piston Pin, 13 Block, Manual/Remote Control Terminal, 61, 63 Cleaner, Heavy Duty Air, 34, 35 Block, Oil Distribution, 11 Cleaner, Standard Air, 31, 33 Block, Terminal, 73 Clevis, Electronic Governor, 24 Board Assy, PC Engine, 76 Clutch, Starter, 29 Board, Aux Relay, 64 Coil, Ignition, 28 Board, Engine Monitor, 75 Components, Starter, 29 Board, PC Sensor Board, 76 Control, AC Detector, 71, 73 Board, Time Delay, 75 Control, DC Detector, 75, 76 Boot, On/Off/Start Switch, 61 Control, Ignition, 27 Bottom, ControlBox, 81 Control, Manual/Remote, 61, 63 Box, Control (Manual/Remote), 61, 63 Controller, Electronic Governor, 24 Box, DC Detector Control, 75 Cotter, Valve, 17 Box, Detector Control Output, 85 Coupling, Pipe, 49 Box, Meter Panel Control (Manual/Remote), 68, 69 Coupling, Regulator (Begin Spec B), 26 Brace, Fuel/Air Breather Support (Begin Spec B), 26 Cover, Battery, 49 Brace, Rear Engine, 47 Cover, Circuit Breaker, 85 Bracket, Alternator Adjusting, 21, 22 Cover, Control Box, 61, 63, 85 Bracket, Breather, 31 Cover, Control Housing, 81 Bracket, Breather Drain Hose, 9 Cover, Control Housing (W/O CB) (Begin Spec B), 83 Bracket, CB Mounting (Begin Spec B), 66, 83 Cover, Cylinder Head, 17, 19 Bracket, Control Saddle, 81 Cover, Detector Control Box, 75 Cover, Endbell Inlet, 57 Bracket, Coolant Heater, 42

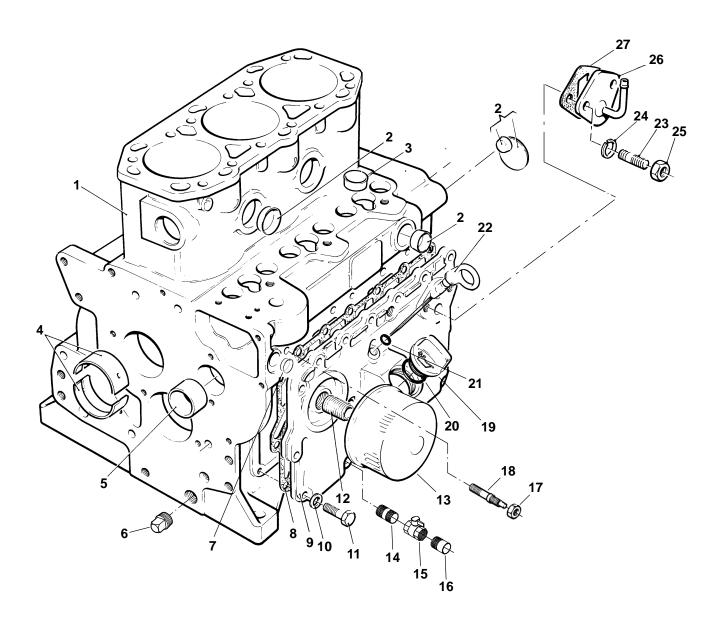
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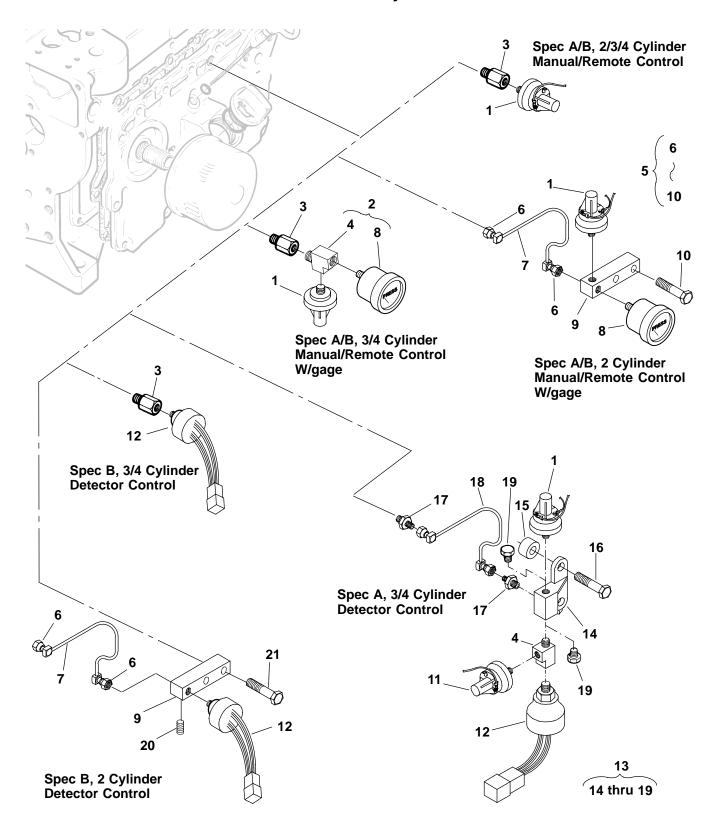
# Cylinder Block



# Cylinder Block

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Engine, Replacement	10			Washer (M6)
			Spec A		186-6015	11	GNAA
	100-3479-02	1	GNAA		186-6015	15	GNAB
	100-3480-02	1	GNAB		186-6015	19	GNAC
	100-3481-02	1	GNAC	11			Bolt, (M6 x 1 x 25mm)
			Begin Spec B		186-6014	9	GNAA
			ĞNAA		186-6014	12	GNAB
	100-3584-02		Natural Gas		186-6014	15	GNAC
	100-3584-04		Propane		186-6021	1	Adapter, Oil Filter
			GNAB	13	186-6025	1	Filter, Oil
	100-3585-02		Natural Gas	14	186-6614	1	Nipple, Pipe (1/2" x 1-3/4")
	100-3585-04		Propane	15	186-6613	1	Valve, Ball (1/2")
			GNAC	16	186-6629	1	Nipple (1/2")
	100-3586-02		Natural Gas	17			Nut (M6 x 1)
	100-3586-04		Propane		186-6209	2	GNAA
1			Block Assy, Cylinder (Includes		186-6209	3	GNAB
		_	Parts Marked *)		186-6209	4	GNAC
	186-6988	1	GNAA	18			Stud
	186-7011	1	GNAB		186-6250	2	GNAA
_	186-7012	1	GNAC		186-6250	3	GNAB
2	186-6002	1	*Kit, Expansion Plug		186-6250	4	GNAC
3	400 0004	0	*Plug	19	186-6023	1	Cap, Oil Fill
	186-6991	2	GNAA	20	186-6024	1	O'Ring
	186-6991	3	GNAB	21	186-6029	1	O'Ring
4	186-6991	4	GNAC	22	400 0000	4	Dipstick, Oil (Includes O'Ring)
4	106 6002	4	*Bearing, Gear End Main Standard		186-6026	1	GNAA
	186-6003 186-6004	1 1	0.25mm Undersize	00	186-6410	1	GNAB, GNAC
	186-6005	1	0.50mm Undersize		186-6796	2	Stud (M8 x 35mm)
5	186-6006	1	*Bearing, Gear End Camshaft	24	186-6529	2	Washer, Spring (M8)
6	186-6007	1	*Plug, 3/8"	25	186-6274	2	Nut, Hex (M8 x 1.25)
7	186-6995	1	*Plug	26	186-7051	1	Bracket, Breather Drain Hose
8	100-0993	'	Gasket, Side Cover	27	186-6017	1	Gasket
0	186-6010	1	GNAA				
	186-6405	1	GNAB	* _	Parts Include	ed in Cyling	der Block Assy.
	186-6012	1	GNAC			· · · · · · · · · · · · · · · · · · ·	20. 2.00
9	100-0012	'	Cover, Side (Includes Bearing)				
J	186-6401	1	GNAA				
	186-6402	1	GNAB				
	186-6403	i	GNAC				
			=				

#### **Oil Pressure System**

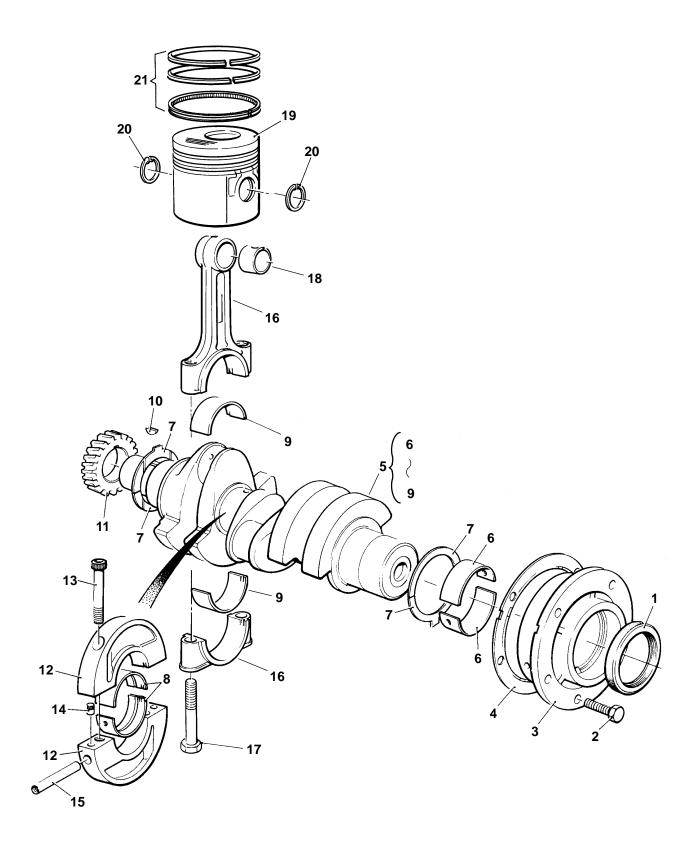


## **Oil Pressure System**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6580	1	Switch, Oil Pressure Shutoff (5psi)	12	193-0448	1	Sender, Oil Pressure (Used With Detector Control)
2	193-0474	1	Kit, Oil Pressure Gauge (Includes Street Tee and Gauge) (GNAB)	13	186-6803	1	Block Assy, Oil Distribution (Includes Parts Marked °) (Used With Detector Control)
3	186-6253	1	Adapter, Oil Pressure Switch	14	186-6806	1	°Block, Oil Distribution
4	186-6297	1	Tee, 1/8 NPT Street	15	186-6808	2	°Spacer
5	193-0478	1	Kit, Oil Pressure Gauge (GNAA) (Includes Parts Marked +)	16	186-6526	2	°Screw, Hex Head Cap (M10 x 30mm)
6	186-7028	2	+Elbow (1/8 NPT) (GNAA)	17	186-6801	2	°Union
7	186-7039	1	+Tube, Copper (GNAA)	18	186-6807	1	°Hose
8	186-6986	1	+Gauge, Oil Pressure	19	186-6022	2	°Plug
9	186-7037	1	+Block, Oil Distributtion (GNAA)	20	505-0057	1	Plug, 1/8 NPT
10	186-7045	2	+Screw, Hex Head Cap (GNAA) (M10 x 1.5 x 55mm)	21	800-2090	1	Screw, Hex Head Cap (M10 x 1.5 x 45mm)
11	186-6968	1	Switch, Oil Pressure Warning (9 psi) (Used With Detector Control)				ressure Gauge Kit.

<sup>° -</sup> Parts Included in Oil Distribution Block Assy.

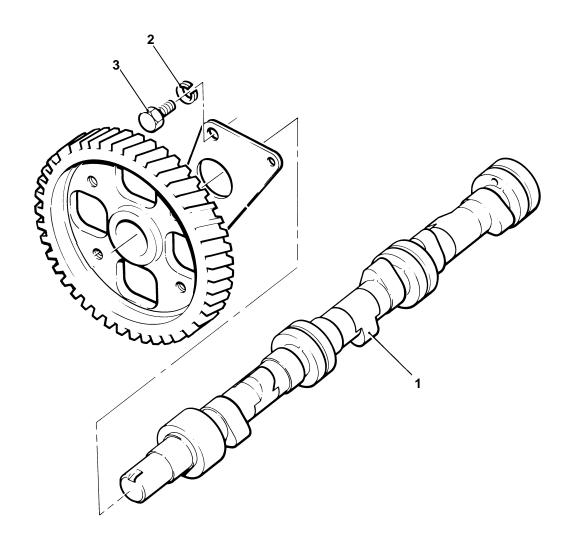
## Crankshaft



#### Crankshaft

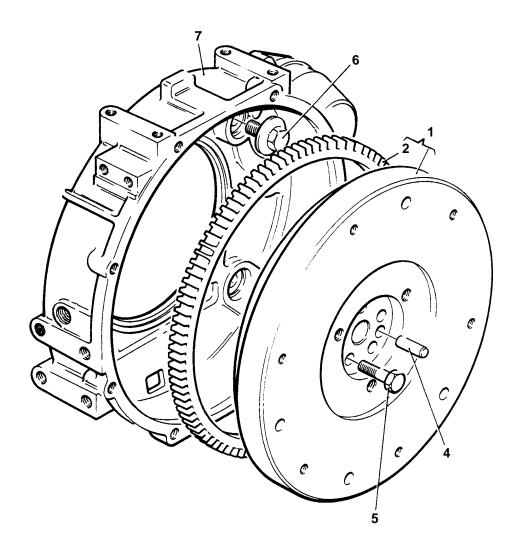
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6063	1	Seal, Oil		186-6050	6	GNAC
2	186-6064	5	Screw, Hex Head Cap	14			Dowel
			(M8 x 1.25 x 20mm)		186-6049	2	GNAA
3	186-6058	1	Housing, Main Bearing		186-6049	4	GNAB
4			Shim		186-6049	6	GNAC
	186-6065	AR	.38mm	15			Tube, Locating
	186-6066	AR	.50mm		186-6057	1	GNAA
5			Crankshaft Assy (Includes Parts		186-6057	2	GNAB
			Marked *)		186-6057	3	GNAC
	186-6046	1	GNAA	16			Rod Assy, Connecting (Includes
	186-6420	1	GNAB		400 0070	•	Rod, Bolt and Small Bearing)
_	186-6047	1	GNAC		186-6078	2	GNAA
6	400 0000	4	*Bearing Set, Flywheel End Main		186-6078	3	GNAB
	186-6060 186-6061	1 1	Standard 0.25 mm Undersize	17	186-6078	4	GNAC
	186-6062	1	0.50 mm Undersize	17	186-6079	4	Bolt, Connecting Rod GNAA
7	186-6056	1	*Washer Set, Thrust		186-6079	6	GNAB
8	100-0050		*Bearing, Center		186-6079	8	GNAC
O			GNAA	18	100 0075	O	Bearing, Small
	186-6051	1	Standard	10	186-6080	2	GNAA
	186-6052	1	.25mm		186-6080	3	GNAB
	186-6053	1	.50mm		186-6080	4	GNAC
			GNAB	19			+Piston Assy (Includes Pin,
	186-6051	2	Standard				Piston, Circlip and Ring Set)
	186-6052	2	.25mm				Standard
	186-6053	2	.50mm		186-7025	2	GNAA
			GNAC		186-7025	3	GNAB
	186-6051	3	Standard		186-7025	4	GNAC
	186-6052	3	.25mm			_	.50mm Oversize
_	186-6053	3	.50mm		186-7024	2	GNAA
9			*Bearing, Large		186-7024	3	GNAB
	100 0001	2	Standard	20	186-7024	4	GNAC
	186-6081 186-6081	2 3	GNAA GNAB	20	186-6072	4	Circlip GNAA
	186-6081	4	GNAC		186-6072	6	GNAA
	100-0001	7	.25mm Undersize		186-6072	8	GNAC
	186-6082	2	GNAA	21	100 0072	O	Ring Set, Piston
	186-6082	3	GNAB				Standard
	186-6082	4	GNAC		186-6073	2	GNAA
			.50mm Undersize		186-6073	3	GNAB
	186-6083	2	GNAA		186-6073	4	GNAC
	186-6083	3	GNAB				.50mm Oversize
	186-6083	4	GNAC		186-6075	2	GNAA
10	186-6055	1	Key		186-6075	3	GNAB
11	186-6054	1	Pinion, Crankshaft		186-6075	4	GNAC
12			Housing, Center Bearing		400 00==	_	1.00mm Oversize
			(Includes Cap Screw and		186-6077	2	GNAA
	100 0010	4	Dowel)		186-6077	3	GNAB
	186-6048	1 2	GNAA GNAB		186-6077	4	GNAC
	186-6048 186-6048	3	GNAC				
13	100-0040	3	Screw, Cap (M8 x 50mm)	* _	Parts Include	ed in Cran	kshaft Assy.
10	186-6050	2	GNAA				e Separately.
	186-6050	4	GNAB				•

## Camshaft

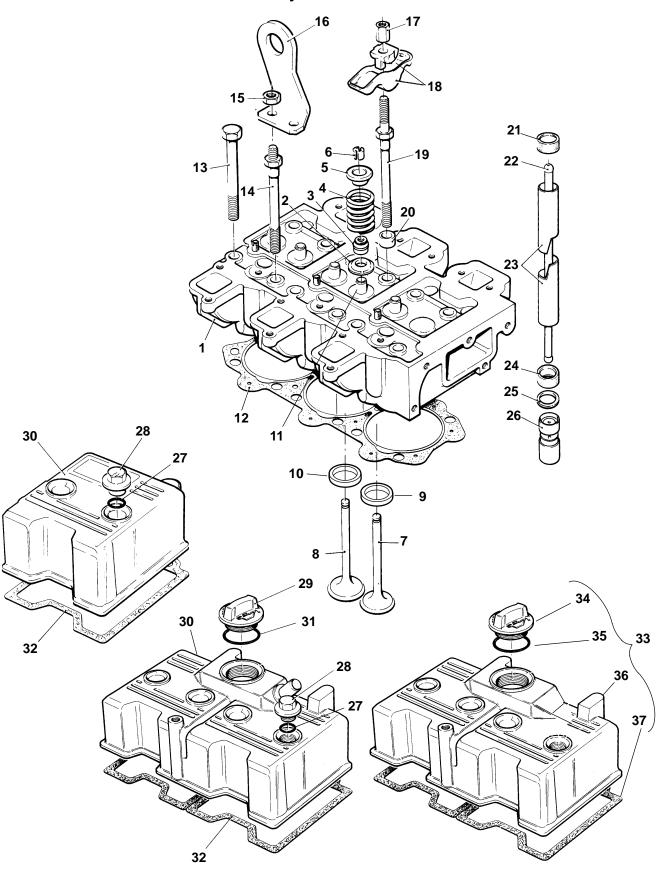


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Camshaft Assy (Includes	2	186-6038	2	Washer, Spring (M6)
			Gearwheel & Thrust Plate)	3	186-6037	2	Screw, Set (M6 x 12mm)
	186-6035	1	GNAA				,
	186-6416	1	GNAB				
	186-6036	1	GNAC				

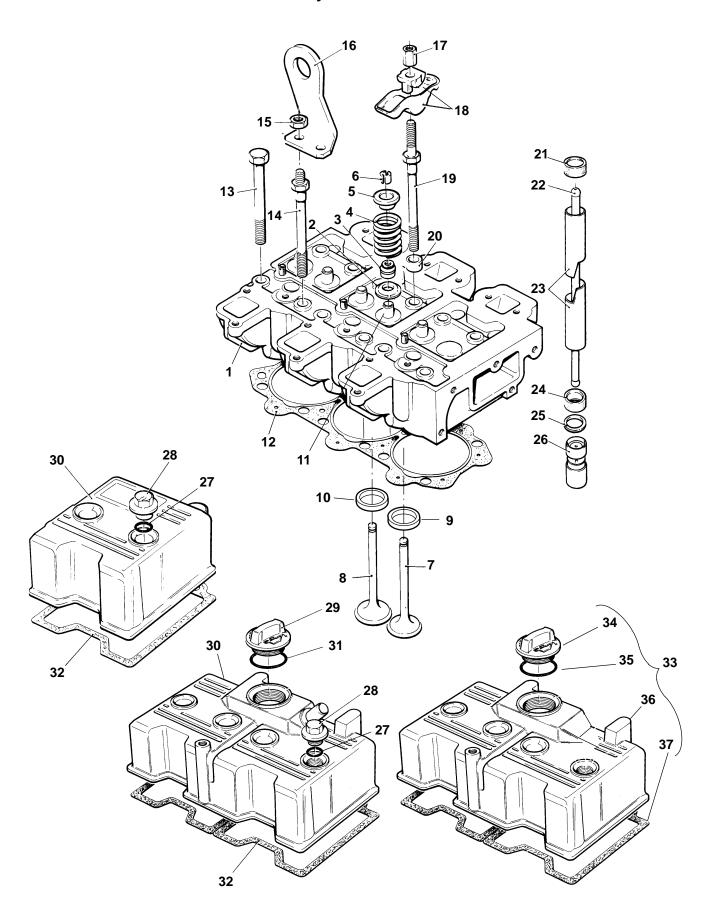
# Flywheel



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-7010	1	Flywheel (Includes Ring Gear)	6	186-6198	4	Screw, Self-Lock Set
2	186-6460	1	Gear, Ring				(M12 x 25mm)
3	186-6463	1	Plug, Banking	7	186-6466	1	Housing, Flywheel
4	186-6461	1	Dowel				
5	186-6462	5	Screw, Hex Head Cap (M10 x 35mm)				

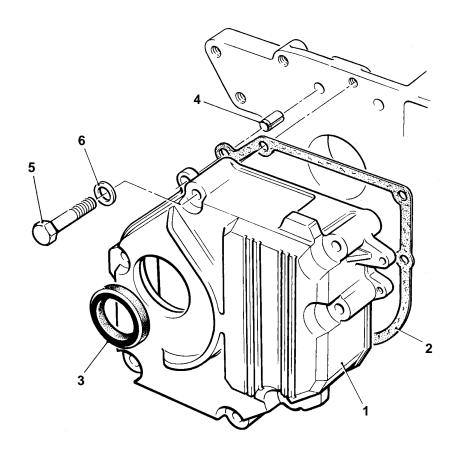


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Head Assy, Cylinder (Includes	17			Nut (M8)
			Parts Marked *)		186-6095	4	GNAA
	186-7013	1	GNAA		186-6095	6	GNAB
	186-7014	1	GNAB		186-6095	8	GNAC
	186-7015	1	GNAC	18			Lever, Rocker (Includes Pivot)
2	400 0000		*Plate, Valve Spring		186-6258	4	GNAA
	186-6088	4	GNAA		186-6094	6	GNAB
	186-6088	6	GNAB	10	186-6094	8	GNAC
3	186-6088	8	GNAC *Seal, Valve Stem	19	186-6104	4	Bolt (M10) GNAA
3	186-6093	2	GNAA		186-6104	6	GNAB
	186-6093	3	GNAB		186-6104	8	GNAC
	186-6093	4	GNAC	20	100 0104	U	Spacer
4	100 0000	•	*Spring, Valve		186-6107	4	GNAA
	186-6089	4	GNAA		186-6107	6	GNAB
	186-6089	6	GNAB		186-6107	8	GNAC
	186-6089	8	GNAC	21			Rubber, Head Sealing Tube
5			*Carrier, Valve Spring		186-6102	4	GNAA
	186-6090	4	GNAA		186-6102	6	GNAB
	186-6090	6	GNAB		186-6102	8	GNAC
	186-6090	8	GNAC	22			Rod, Push
6		_	*Cotter, Valve		186-6098	4	GNAA
	186-6091	8	GNAA		186-6098	6	GNAB
	186-6091	12	GNAB	00	186-6098	8	GNAC
7	186-6091	16	GNAC	23	400 0000	4	Tube, Push Rod Sealing
7 8			*Valve, Exhaust		186-6099	4	GNAA
0	186-6758	2	*Valve, Inlet GNAA		186-6099	6 8	GNAB GNAC
	186-6758	3	GNAB	24	186-6099	0	Rubber, Sealing Tube
	186-6758	4	GNAC	24	186-6100	4	GNAA
9	100 07 00	7	*Insert, Exhaust Valve		186-6100	6	GNAB
Ū	186-7005	2	GNAA		186-6100	8	GNAC
	186-7005	3	GNAB	25	.00 0.00	Ū	Washer
	186-7005	4	GNAC		186-6101	4	GNAA
10			*Insert, Inlet Valve		186-6101	6	GNAB
	186-7004	2	GNAA		186-6101	8	GNAC
	186-7004	3	GNAB	26			Tappet, Hydraulic
	186-7004	4	GNAC		186-6103	4	GNAA
11		_	*Guide, Valve		186-6103	6	GNAB
	186-6092	4	GNAA		186-6103	8	GNAC
	186-6092	6	GNAB	27	400 0000		O'Ring
40	186-6092	8	GNAC		186-6028	4	GNAA
12	106 6100	4	Gasket, Cylinder Head		186-6028	6	GNAB
	186-6109 186-6436	1 1	GNAA GNAB	28	186-6028	8	GNAC Nut
	186-6112	1	GNAC	20	186-6118	4	GNAA
13	100-0112		Bolt (M10)		186-6118	6	GNAB
10	186-6105	2	GNAA		186-6118	8	GNAC
	186-6105	4	GNAB, GNAC	29	186-6023	1	Cap, Oil Fill
14	.00 0.00	•	Bolt (M10)	30	.00 0020	·	Cover, Cylinder Head
	186-6106	2	GNAA, GNAB		186-6792	1	GNAA
	186-6106	4	GNAC				GNAB
15			Nut, Hex (M8 x 1.25)		186-6116	1	Single Cover
	186-6020	2	GNAA, GNAB		186-6792	1	Double Cover
	186-6020	4	GNAC				GNAC
16		_	Eye, Lifting		186-6116	2	Single Cover
	186-6437	1	GNAA, GNAB		186-6792	1	Double Cover
	186-6437	2	GNAC				



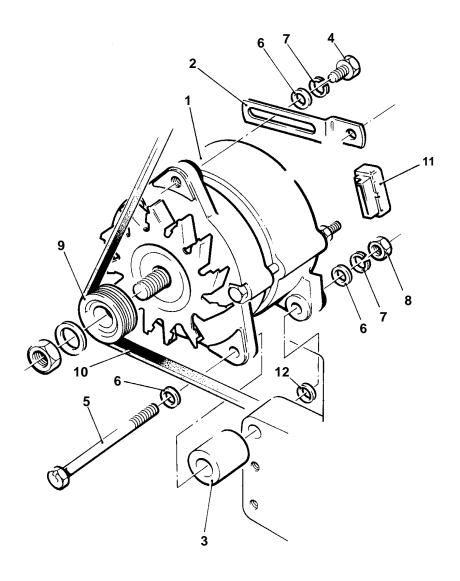
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
31	186-6024	1	O'Ring, Oil Fill Cap	34	186-6023	1	+Cap, Oil Fill
32			Gasket, Head Cover	35	186-6024	1	+O'Ring
	186-6117	2	GNAA	36	186-6902	1	+Cover, Cylinder Head
	186-6117	3	GNAB	37	186-6117	2	+Gasket, Cover
	186-6117	4	GNAC				
33	123-2126	1	Kit, High Oil Fill (Includes Parts Marked +)				

## **Gear End Cover**



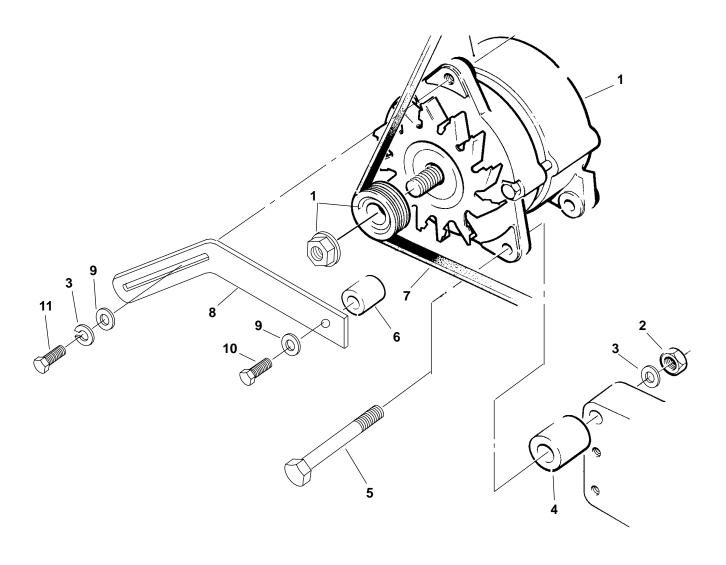
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6438	1	Cover, Gear End	5	186-6150	7	Screw, Hex Head Cap
2	186-6147	1	Gasket, Cover				(M6 x 1 x 50mm)
3	186-6148	1	Seal, Rear Crank Oil	6	186-6015	7	Washer (M6)
4	186-6149	2	Dowel				• •

# Alternator (Spec A)



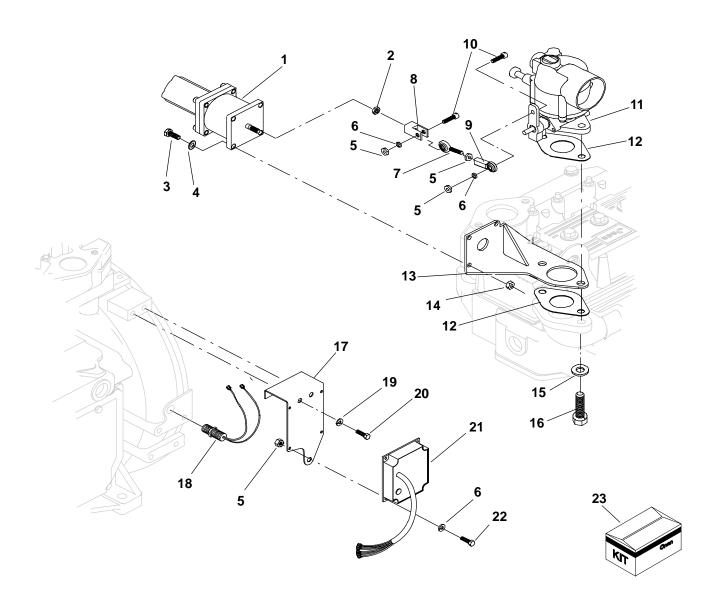
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6469	1	Alternator (12V, 45A) (Includes	7	186-6019	3	Washer, Spring (M8)
			Nut and Washer for Mounting	8	186-6274	1	Nut, Hex (M8 x 1.25)
			Pulley)	9	186-6558	1	Pulley
2	186-6470	1	Bracket, Adjusting	10	186-6477	1	Belt
3	186-6471	1	Spacer	11	186-6478	1	Plug, Connector
4	186-6472	1	Screw, Hex Head Cap	12	186-6479	1	Spacer
			(M8 x 20mm)	13	186-6480	1	Spacer
5	186-6840	1	Bolt (M8 x 130mm)	14	186-6481	1	Screw, Hex Head Cap
6	186-6412	4	Washer (M8)				(M8 x 50mm)

Alternator (Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186–7209		Alternator (Includes Nut and	8	186–7212	1	Bracket, Adjusting
			Pulley)	9	186-6412	1	Washer (M8)
2	186-6274	1	Nut, Hex (M8 x 1.25)	10			Bolt
3	186-6529	3	Washer, Spring (M8)		186-7202	1	M8 x 1.25 x 35mm
4	186-7210	1	Pivot, Front Spacer		186-7203	1	M8 x 1.25 x 30mm
5	186-7201	1	Bolt (M8 x 100mm)	11	186-6681	1	Screw, Hex Head Cap
6	186-7211	1	Spacer				(M8 x 25mm)
7	186-6811	1	Belt				,

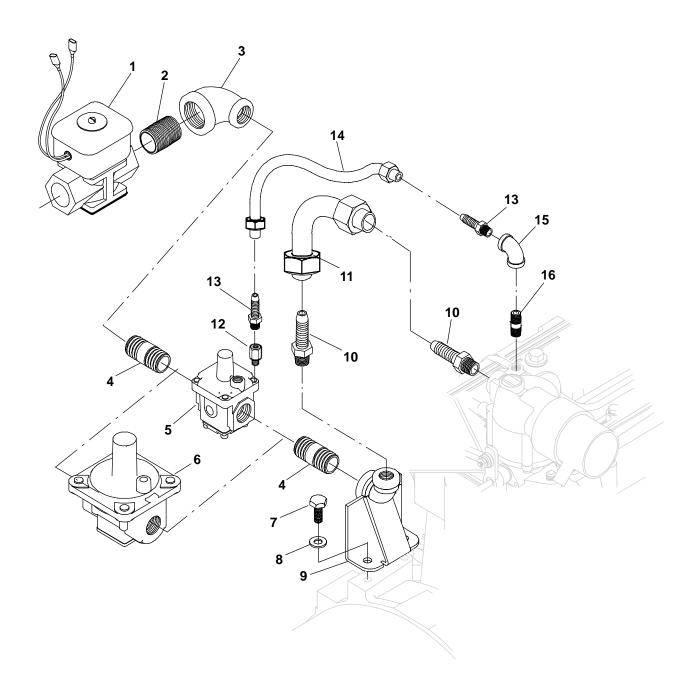
## **Electronic Governor**



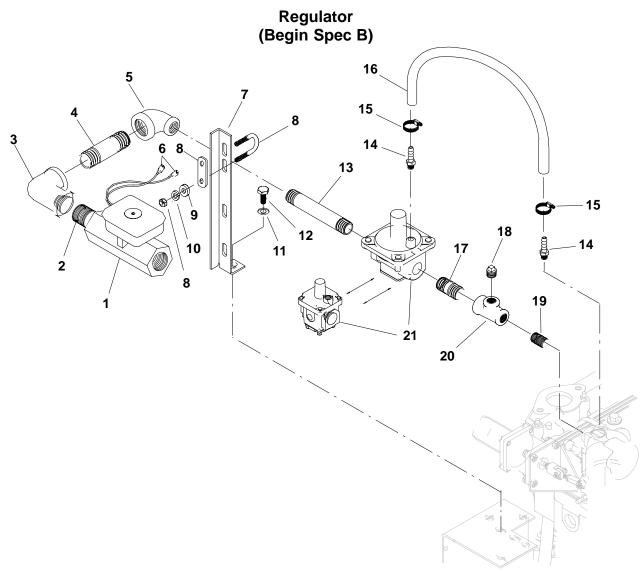
#### **Electronic Governor**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6497	1	Actuator, Electronic Governor	12	186-6948	2	Gasket, Flange
			(Includes Nut))	13	186-6942	1	Bracket, Governor Actuator
2	-*	1	Nut (M6 x 1mm)	14	186-6209	4	Nut, Hex (M6 x 1)
3	186-6034	4	Screw, Hex Head Cap	15	186-6849	2	Washer, Spring (3/8")
			(M6 1 x 20mm)	16	186-6996	2	Screw, Hex Head Cap
4	186-6597	4	Washer, Lock (M6)				(3/8-16 x 1.25")
5	186-6474	7	Nut, Hex (#10-32)	17	186-6964	1	Bracket, Governor Controller
6	186-6458	6	Washer, Spring (3/16")	18	186-6647	1	Pick-Up, Magnetic (5/8-18 x 3")
7	186-6648	1	End, Male Rod (3/16")	19	186-6618	2	Washer, Spring (M8)
8	186-6923	1	Clevis	20	186-6064	2	Screw, Herx Head Cap
9	186-6649	1	End, Female Rod (3/16")				(M8 x 1.25 x 20mm)
10	186-6682	2	Screw, Fillister Head Machine	21	186-6650	1	Controller, Electronic Governor
			(#10-32 x 3/4)	22	186-6486	4	Screw, Hex Machine
11			Carburetor				(#10-32 x 1/2")
			Spec A	23	186-7038	1	Kit, Carburetor Repair (Includes
	186-6973	1	Propane				Air-Gas Valve Assy, Sealing
	186-6947	1	Natural Gas				Ring, Check Valve Plate,
			Begin Spec B				Throttle Body to Mixer Gasket,
			GNAA				Screw (10-24 x 5/8") Idle
	186-7123	1	Natural Gas				Cutoff Piston, Idle Cutoff
	186-7124	1	Propane				Spring, Instruction Sheet)
			GNAB				
	186-7125	1	Natural Gas	*	Net Celd Ce		alical and solithe Alatication
	186-7126	1	Propane	_	Not Sold Sep	barately, in	cluded with Actuator.
			GNAC				
	186-7127	1	Natural Gas				
	186-7128	1	Propane				

# Regulator (Spec A)

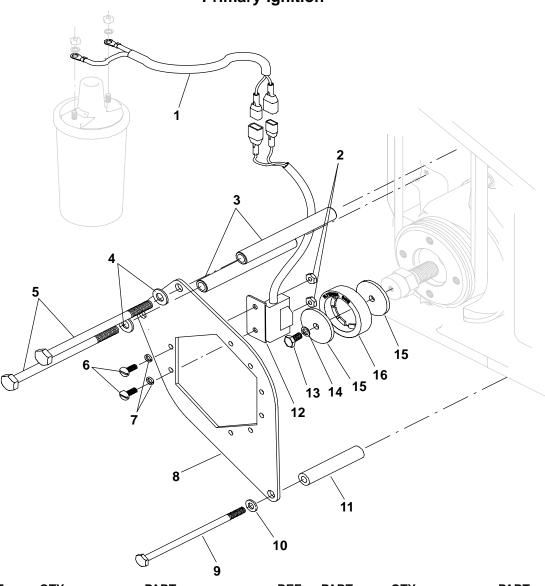


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	307-0312	1	Valve, Magnetic Gas	9	186-6945	1	Bracket, Gas Regulator Support
2	186-6938	1	Nipple, Close (3/4 NPT)	10	502-1045-10	2	Adapter, Brass
3	186-6937	1	Elbow, Reducing	11	186-6949	1	Tube Assy, Fuel (5/8 x 9-3/4"))
4	186-6614	2	Nipple, Pipe	12	186-6253	1	Adapter
			(1/2 NPT x 1.75" Lg)	13	186-6936	2	Adapter, Brass
5	186-6972	1	Regulator, Propane (C099)	14	186-6950	1	Tube Assy, Balance
6	186-6951	1	Regulator, Natural Gas (C002)				(1/4" x 12-1/4"))
7	186-6064	2	Screw, Hex Head Cap	15	186-6953	1	Elbow, 90 Deg (1/8" NPT)
			(M8 x 1.25 x 20mm)	16	186-6952	1	Nipple, Close (1/8" NPT x Close)
8	186-6618	2	Washer, Spring (M8)				



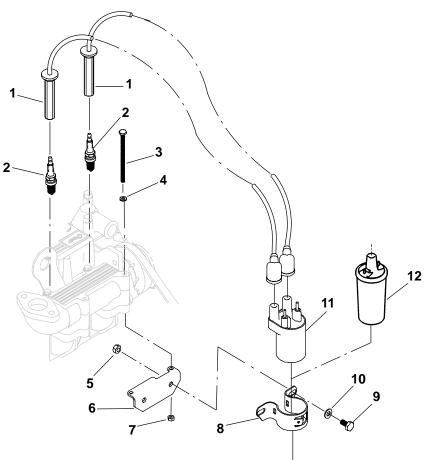
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-0312	1	Valve, Magnetiv Gas	15	186-6536	4	Clamp, Hose (.2562" OD)
2	186-6938	1	Nipple, Close (3/4 NPT)	16	186-7070	1	Hose (1/4 ID x 8" Lg)
3	505-0132	1	Elbow, 90 Deg (3/4 NPT)	17	505-0100	1	Nipple (1/2 NPT x Close)
4	505-0337	1	Nipple (3/4 x 4")	18	505-0110	1	Plug, Square Head (3/8 NPT)
5	186-6937	1	Coupling, 90 Deg (3/4" NPT to 1/2 NPT	19	505-0101	1	Nipple, Coupled (3/8 NPT Close)
6	186-7057	2	Terminal, Fully Insulated (1/4")	20	186-7066	1	Tee, Reducing (1/2 x 3/8 x 3/8")
7	186-7086	1	Brace, Fuel/Air Breather Support	21			Regulator GNAA
8	186-7059	1	Clamp, Pipe (1/2")		186-7129	1	Natural Gas
9	186-6933	4	Washer (1/4")		186-7130	2	Propane
10	186-6295	1	Washer, Spring (1/4")				GNAB
11	186-6975	5	Washer, Flat (M8)		186-7131	1	Natural Gas
12	800-2059	1	Screw, Hex Head Cap (M8 x 1.25 x 30mm)		186-7132	1	Propane GNAC
13			Nipple		186-7133	1	Natural Gas
	186-7069 505-0081	1 1	1/2 NPT x 4-1/2" Lg 1/2 NPT x 5-1/2 Lg		186-7134	1	Propane
14	186-7055	2	Barb, Hose (1/8 NPT to 1/4 Hose)				

# **Primary Ignition**



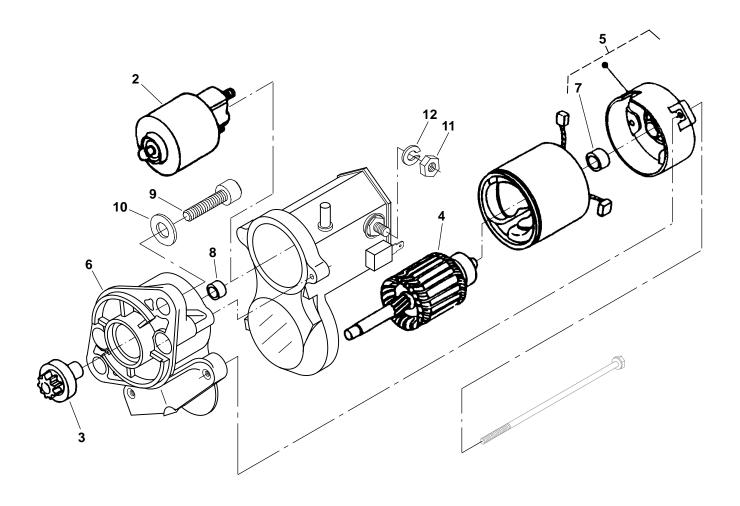
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Ignition	7			Washer, Spring (3/16")
	186-6969	1	GNAA		186-6458	2	GNAA
	186-6970	1	GNAB		186-6458	6	GNAB
	186-6971	1	GNAC		186-6458	4	GNAC
2			Nut, Hex (10-32)	8	186-6994	1	Plate, Ignition
	186-6474	2	GNAA	9	186-6998	1	Screw, Hex Head Cap
	186-6474	6	GNAB				(M6 x 1 x 125mm)
	186-6474	4	GNAC	10	186-6015	1	Washer
3	186-6992	2	Spacer	11	186-6993	1	Spacer
4	186-6567	2	Washer	12			Control, Ignition
5	186-6983	2	Screw, Hex Head Cap		166-0785	1	GNAA
			(M8 x 1.25 x 130mm)		166-0785	3	GNAB
6			Screw, Phillister Head Machine		166-0785	2	GNAC
			(10-32 x 1/2")	13	186-6546	1	Screw, (M6 x 1 x 16mm)
	186-6486	2	GNAA	14	186-6997	1	Washer, Fan
	186-6486	6	GNAB	15	186-7006	2	Washer, Retaining
	186-6486	4	GNAC	16	166-0767	1	Rotor, Ignition

# Secondary Ignition



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Lead, High Tension	7			Nut, Hex (M6 x 1mm)
	186-6962	2 3	GNAA (12")		186-6209	2	GNAA
	186-6961	3	GNAB (12")		186-6209	3	GNAB
			GNAC		186-6209	4	GNAC
	186-6962	2	12"	8			Bracket, Coil
	186-6963	2	18"		186-6957	1	GNAA
2			Plug, Spark		186-6957	3	GNAB
	186-6958	2	GNAA		186-6957	2	GNAC
	186-6958	3	GNAB	9			Screw, Hex Head Cap
	186-6958	4	GNAC				(M8 x 1.25 x 16mm)
3			Screw, Hex Head Cap		186-6668	2	GNAA
			(M6 x 100mm)		186-6668	6	GNAB
	186-6946	2	GNAA		186-6668	4	GNAC
	186-6946	3	GNAB	10			Washer, Spring (M8)
	186-6946	4	GNAC		186-6618	2	GNAA
4			Washer, Lock (M6)		186-6618	6	GNAB
	186-6597	2	GNAA		186-6618	4	GNAC
	186-6597	3	GNAB	11			Coil, Ignition
	186-6597	4	GNAC		166-0820	1	GNAA
5			Nut, Hex (M8 x 1.25)		166-0820	2	GNAC
	186-6274	2	GNAA	12	186-6960	3	Coil, Ignition - GNAB
	186-6274	6	GNAB				
	186-6274	4	GNAC				
6			Bracket, Coil				
	186-6943	1	GNAA				
	186-6944	1	GNAB				
	186-6943	2	GNAC				

# **Starter Components**

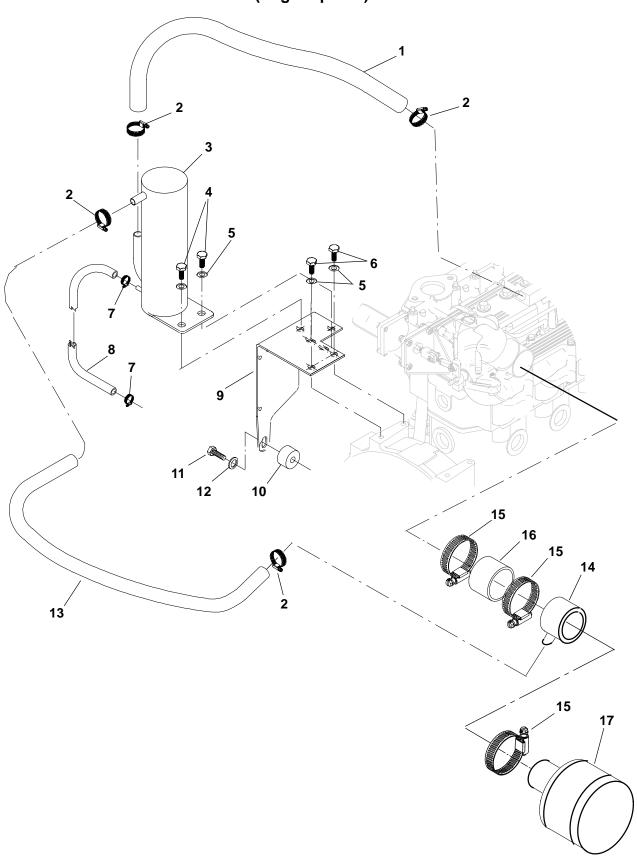


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-2213	1	Starter (1.4kW)	7	191-2221	1	Bearing, Commutator End
1	191-2215	1	Kit, Starter Brush	8	191-2222	1	Bearing, Pinion End
2	191-2216	1	Switch	9	186-6675	2	Screw, Socket Head Cap
3	191-2217	1	Clutch				(M10 x 1.5 x 35mm)
4	191-2218	1	Armature	10	186-6619	2	Washer, Spring (M10)
5	191-2219	1	Frame, Commutator End	11	186-6274	1	Nut, Hex (M8 x 1.25)
6	191-2220	1	Housing	12	186-6618	1	Washer, Spring (M8)

# Breather System (Spec A)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6593	1	Cleaner, Air (Element Not	8	186-6778	1	Breather
			Replaceable)	9	186-6762	2	Clip, Hose
2	186-6661	3	Clamp, Hose	10	186-6987	1	Hose, Inlet
3	186-6965	1	Sleeve, Transition	11	186-6536	2	Clamp, Hose
4	186-6966	1	Sleeve, Hose	12	186-6954	1	Hose, Drain
5	186-6934	2	Clamp, Hose (3/4")	13	186-6985	1	Bracket, Breather
6	186-6967	1	Hose (1/2" ID x 9" Long)	14	186-6618	2	Washer (M8)
7	186-6779	1	Restrictor	15	186-6186	2	Bolt (M8 x 45mm)

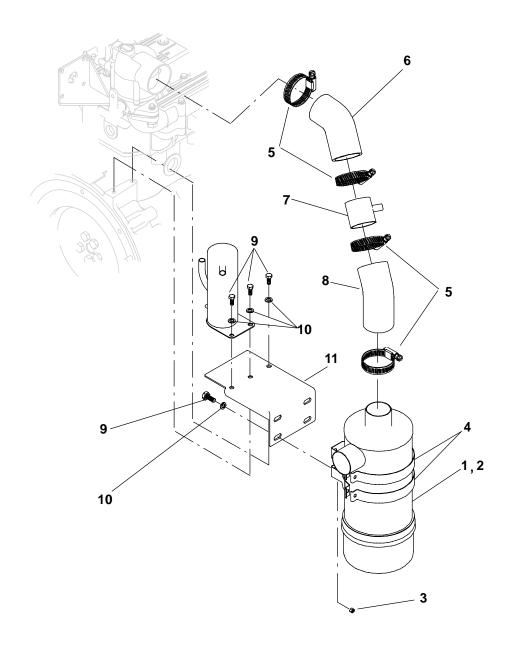
# Breather System (Begin Spec B)



# Breather System (Begin Spec B)

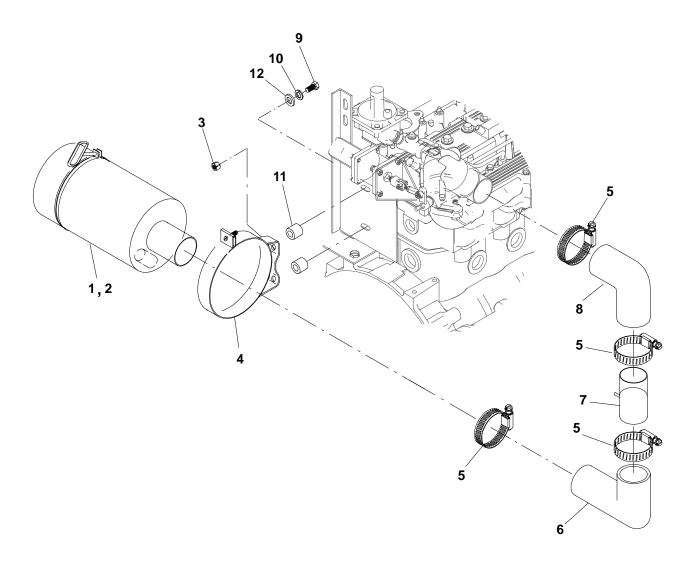
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-7071	1	Hose (1/2 ID x 18" Lg)	10	186-7067	1	Spacer (24mm Lg)
2	186-6934	4	Clamp, Hose (3/4")	11	800-2089	1	Screw, Hex Head Cap
3	186-6778	1	Breather				(M10 x 1.5 x 40mm)
4	186-6669	2	Screw, Hex Head Cap	12	186-7087	1	Washer, Plain (7/16")
			(M8 x 1.25 x 25mm)	13	186-7071	1	Hose (1/2 ID x 20" Lg)
5	186-6975	4	Washer, Flat (M8)	14	186-6965	1	Sleeve, Transition
6	186-6064	2	Screw, Hex Head Cap	15	186-6661	3	Clamp, Hose
			(M8 x 1.25 x 20mm)	16	186-6966	1	Sleeve, Hose (2" ID x 1-1/4" Lg)
7	186-6536	4	Clamp, Hose (.2562" OD)	17	186-6593	1	Cleaner, Air (Element Not
8	186-7070	1	Hose (1/4 ID x 10" Lg)				Replaceable)
9	186-7081	1	Bracket, Fuel/Air Breather				•

# Heavy Duty Air Cleaner (Spec A)



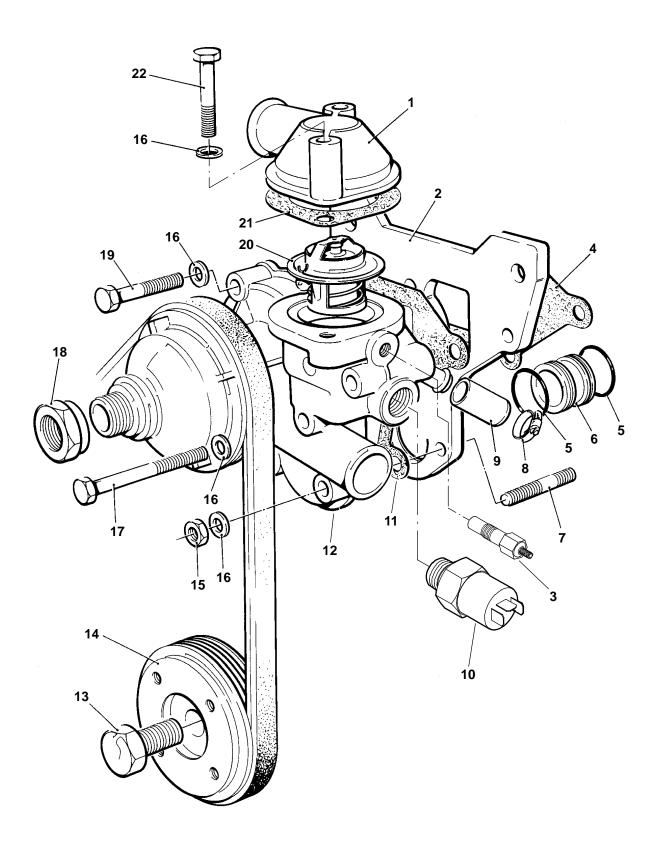
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6935	1	Cleaner Assy, Air (5-1/4")	7	186-6966	1	Sleeve, Hose (2" ID x 1-1/4" Lg)
			(Includes Element)	8	186-6990	1	Hose, Elbow
2	186-6685	1	Element, Air Cleaner	9	186-6064	7	Screw, Hex Head Cap
3	186-6274	4	Nut, Hex (M8 x 1.25)				(M8 x 1.25 x 20mm)
4	186-7000	2	Band, Mounting	10	186-6019	7	Washer, Lock (M8)
5	186-6661	4	Clamp, Hose	11	186-6984	1	Bracket, Air Cleaner
6	186-6989	1	Hose Flhow				·

### Heavy Duty Air Cleaner (Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6935	1	Cleaner Assy, Air (5-1/4")	7	186-6965	1	Sleeve, Hose (2" ID x 1-1/4" Lg)
			(Includes Element)	8	186-7072	1	Hose, Elbow
2	186-6685	1	Element, Air Cleaner	9	186-7204	2	Screw, Hex Head Cap
3	186-6274	2	Nut, Hex (M8 x 1.25)				(M8 x 1.25 x 30mm)
4	186-7000	1	Band, Mounting	10	186-6618	2	Washer, Lock (M8)
5	186-6661	4	Clamp, Hose	11	186-7090	1	Spacer
6	186-7213	1	Hose, Elbow	12	186-6975	2	Washer, Flat

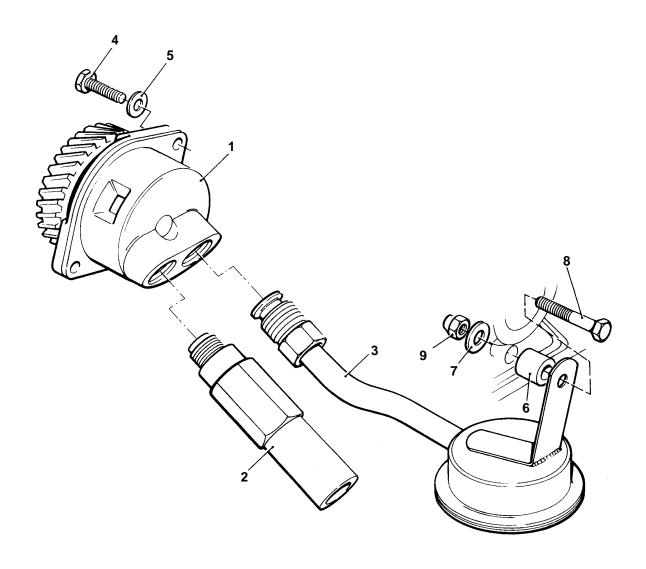
### Water Pump



### Water Pump

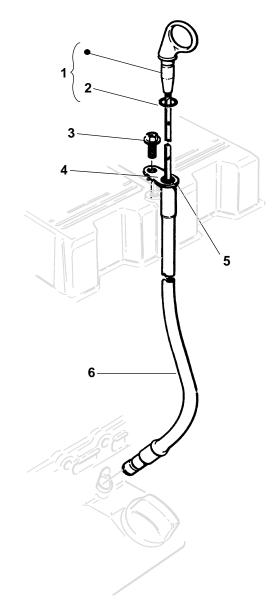
REF	PART	QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	186-6189	1	Outlet, Thermostat	11	186-6180	1	Gasket
2	186-6181	1	Plate, Mounting	12	186-6178	1	Pump, Water (Puller Not Sold
3	186-6615	1	Sender, Temperature (Used				Separately)
			With Detector Control)	13	186-7003	1	Bolt, Crankshaft Pulley
4	186-6182	1	Gasket	14	186-6548	1	Pulley, Crankshaft
5	186-6184	2	O'Ring	15	186-6020	2	Nut, Hex (M8 x 1.25)
6	186-6183	1	Sleeve	16	186-6187	9	Washer (M8)
7	186-6188	2	Stud (M8 x 45mm)	17	186-6185	3	Bolt (M8 x 75mm)
8	186-6662	1	Clip, Hose	18	186-6694	1	Nut, Fan
9	186-6283	1	Cap	19	186-6186	2	Bolt (M8 x 45mm)
10	186-6482	1	Switch, Water Temperature	20	186-6731	1	Thermostat (190°F)
			(Used With all Controls for	21	186-6190	1	Gasket
			Spec A, Used with Manual and	22	186-6191	2	Bolt (M8 x 60mm)
			Remote Controls for Spec B)				·

### Oil Pump



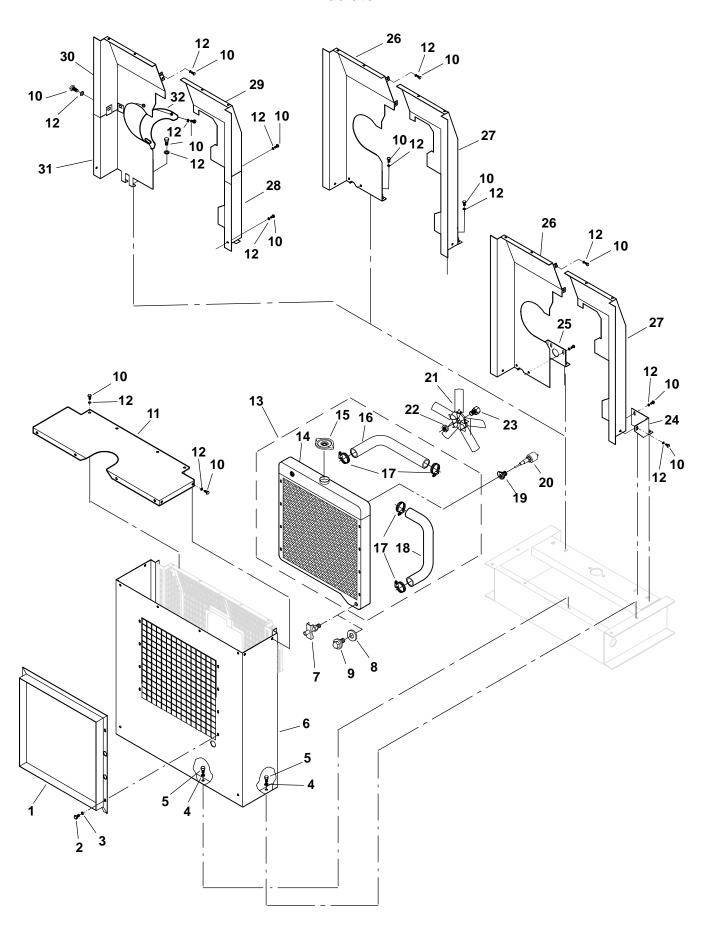
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6030	1	Pump, Oil	5	186-6015	2	Washer (M6)
2	186-6031	1	Valve, Oil Relief	6	186-6411	1	Spacer
3			Strainer, Oil	7	186-6412	1	Washer (M8)
	186-6032	1	GNAA, GNAB	8	186-6413	1	Screw, Hex Head Cap
	186-6033	1	GNAC				(M6 x 35mm)
4	186-6014	2	Screw, Hex Head Cap (M6 x 1 x 25mm)	9	186-6414	1	Nut, Lock (M6)

### **Extended Oil Level Indicator**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, Extended Oil Level Indicator	3	186-6704	1	Screw
	123-2127	1	GNAA	4	186-6909	1	Bracket
	123-2131	1	GNAB, GNAC	5	186-6908	1	Grommet
1	186-6907	1	Oil Level Indicator (Includes	6			Tube
			O'Ring)		186-6905	1	GNAA
2	186-6029	1	O'Ring		186-6906	1	GNAB, GNAC

### Radiator

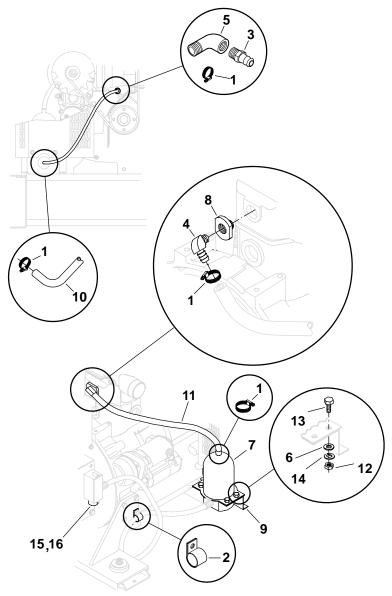


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### Radiator

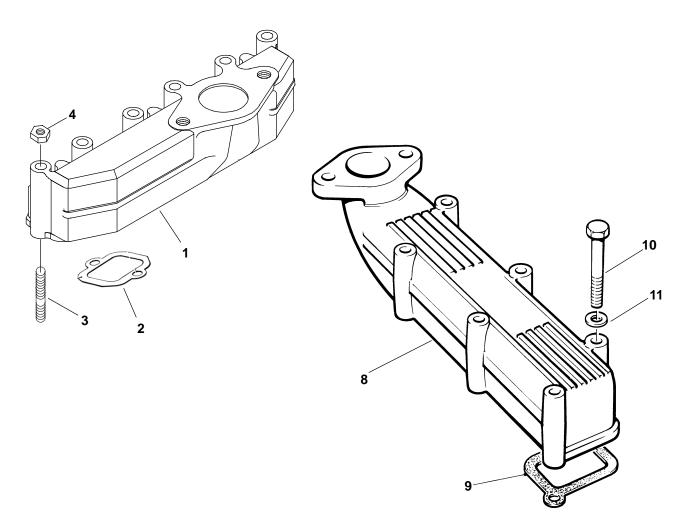
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-4690		Kit, Radiator Duct Adapter	12			Washer, Flat (M8)
			(Includes Adapter, Screws		186-6975	18	Spec A
			and Washers)		186-6975	12	Begin Spec B
1	186-6346	1	Adapter, Radiator Outlet Duct	13			Kit, Radiator (Includes
2			Screw, Hex Head Cap		100 0000	4	Parts Marked *)
			Spec A		186-6926	1	GNAA
	004 0000 00	•	GNAA	4.4	186-6691	1	GNAB, GNAC
	821-6002-03	6	W/O Adapter	14	400 0007	4	*Radiator
			(M6 x 1 x 16mm)		186-6927	1	GNAA GNAB, GNAC
	004 6000 00	4	W/Adapter	15	186-6708	1	·
	821-6002-03 186-6577	4 4	M6 x 1 x 16mm M6 x 1 x 14mm	15 16	186-6825	1	*Cap, Radiator *Hose, Top
	100-0377	4	GNAB, GNAC	10	186-6928	1	GNAA
	821-6002-03	8	W/O Adapter		186-6706	1	GNAA GNAB, GNAC
	021-0002-03	0	(M6 x 1 x 16mm)	17	186-6660	4	*Clip, Hose
			W/Adapter	18	100-0000	7	*Hose, Bottom
	821-6002-03	4	M6 x 1 x 16mm	10	186-6930	1	GNAA
	186-6577	4	M6 x 1 x 14mm		186-6707	1	GNAB, GNAC
	821-6006-01	8	Begin Spec B	19	505-0018	1	Bushing (1/2 x 1/4 NPT)
3	021 0000 01	Ū	Washer, Flat (M6) (Spec A)	20	186–7214	1	Switch, Low Coolant (S7)
·			GNAA	21		•	Fan, Radiator
	186-6974	6	W/O Adapter		186-6929	1	GNAA
	186-6974	8	W/Adapter		186-6695	1	GNAB, GNAC
			GNAB, GNAC	22	186-7052	1	Nut, Fan
	186-6974	8	W/O Adapter	23	186-6705	1	Spacer, Radiator
	186-6974	8	W/Adapter	24	186-6318	1	Bracket, Right Guard (Spec A)
4	186-6976	6	Washer, Flat (M10)	25	186-6319	1	Bracket, Left Guard (Spec A)
5	186-6676	6	Screw, Hex Head Cap	26	186-6315	1	Guard, Left Fan (Spec A)
			(M10 x 1.5 x 20mm)	27	186-6314	1	Guard, Right Fan (Spec A)
6			Cowl, Radiator	28	186-7196	1	Guard, Bottom Right Fan (Begin
			Spec A				Spec B)
			GNAA	29	186-7195	1	Guard, Top Right Fan (Begin
	186-6375-00	1	Green				Spec B)
	186-6375-06	1	Sandstone	30	186-7103	1	Guard, Top Left Fan (Begin
			GNAB, GNAC				Spec B)
	186-6317-00	1	Green	31	186-7117	1	Guard, Bottom Left Fan (Begin
	186-6317-06	1	Sandstone				Spec B)
			Begin Spec B	32	186-7197	1	Plate, Alternator Adjustment
	186-7102	1	GNAA				(Begin Spec B)
_	186-6889	1	GNAB, GNAC				
7	186-6824	1	Valve, Drain	* _	Parts Include	d in Radia	ator Kit
8	186-6823	1	Gasket, Drain Plug		i arts iriolado	a iii i kaaic	ator rat.
9	186-6822	1	Plug, Drain				
10	186-6668	AR	Screw, Hex Head Cap				
11			Cover, Radiator Support (Unhoused Units)				
	186-6316	1	Spec A				
	186-6316	1 1	Begin Spec B				
	100-7 110	'	begin opec b				

### **Coolant Heater**



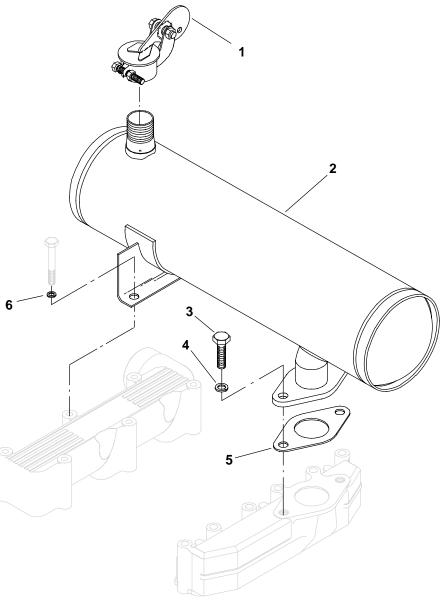
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, Coolant Heater	8	186-6631	1	Adapter, Cylinder Head
	333-0617-01	1	120V (H036)	9	186-6372	1	Bracket, Heater
	333-0617-02	1	208/240V (H540)	10	186-6632	1	Bend, Hose
1	186-6451	4	Clamp, Hose (7/16")	11			Hose
2	186-6475	1	Clamp, Tubing (3/4")		186-6657	1	GNAA (18")
3	186-6495	1	Barb, Hose		186-6658	1	GNAB (22")
4	186-6496	1	Barb, 90° Hose		186-6659	1	GNAC (26")
5	186-6941	1	Elbow, Street (3/8")	12	186-6209	4	Nut, Hex (M6 x 1)
6	186-6617	4	Washer, Flat Spring (M6)	13	186-6546	4	Screw, Hex Head Cap
7			Heater, Coolant (Includes				(M6 x 1 x 16mm)
			Thermostat and Element)	14	186-6591	4	Washer, Flat
	333-0588-01	1	120V	15	186-6624	1	Fitting, Conduit (1/2")
	333-0588-02	1	208/240V	16	186-6911	2	Screw, Self Tapping (#8 x 3/4")
	333-0545	1	Thermostat, Coolant Heater Element, Coolant Heater				
	333-0546	1	120V				
	333-0547	1	208/240				

### Manifold



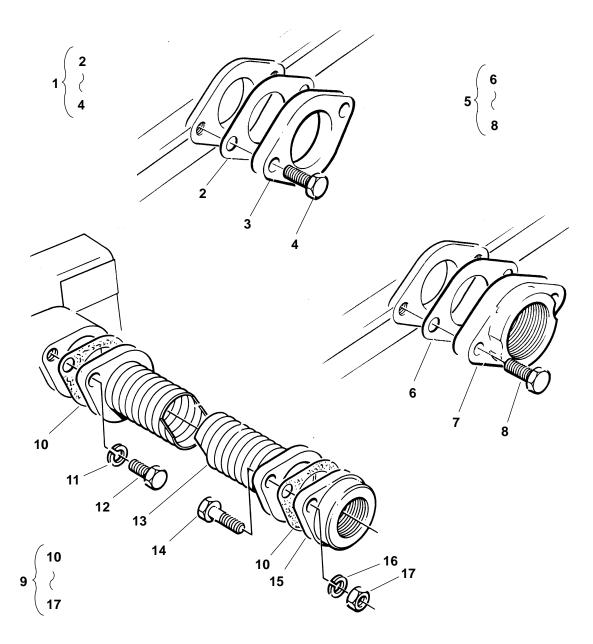
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Manifold, Exhaust (Includes	7	186-6454	1	Restrictor, Inlet Manifold
	400 7004		Manifold Gaskets)	•			(Includes Decal)
	186-7001	1	GNAA	8			Manifold, Inlet
	186-6456	1	GNAB		186-6728	1	GNAA
	186-7002	1	GNAC		186-6452	1	GNAB
2			Gasket, Exhaust Manifold		186-6729	1	GNAC
	186-6206	2	GNAA	9			Gasket, Inlet Manifold
	186-6206	3	GNAB		186-6202	4	GNAA
	186-6206	4	GNAC		186-6202	6	GNAB
3			Stud (M6)		186-6202	8	GNAC
	186-6208	4	GNAA	10			Bolt (M6 x 1 x 75mm)
	186-6208	6	GNAB		186-6203	4	GNAA
	186-6208	8	GNAC		186-6203	6	GNAB
4			Nut (M6 x 1)		186-6203	8	GNAC
	186-6209	4	GNAA	11			Washer (M6)
	186-6209	6	GNAB		186-6015	4	GNAA
	186-6209	8	GNAC		186-6015	6	GNAB
5	186-6459	1	Plug, Heater (Includes Screw)		186-6015	8	GNAC
6	186-6841	1	Screw				

### Muffler



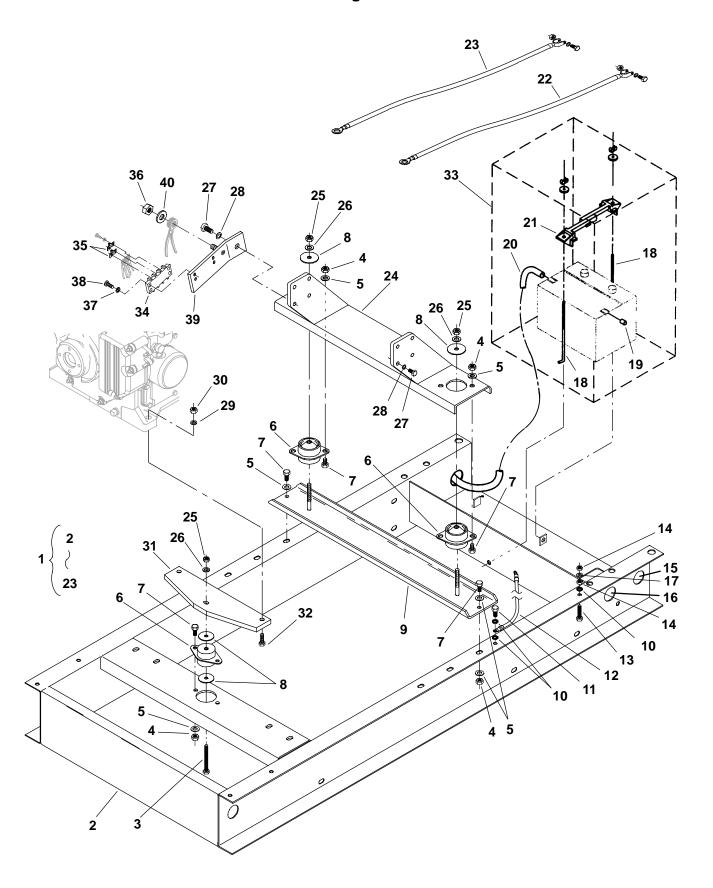
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	155-3140	1	Kit, Industrial Muffler (Includes Parts Marked *)	3	186-6676	2	*Screw, Hex Head Cap (M10 x 1.5 x 20mm)
1			Cap, Rain	4	186-6619	2	*Washer, Flat (M10)
			Spec A (1-1/2")	5	186-6683	1	*Gasket, Muffler (Fibre)
	186-6939	1	* Industrial	6	186-6933	2	*Washer
	186-6981	1	Critical				
	186-6634	1	Begin Spec B (2")				
2			Muffler	* –	Parts Include	ed in Indus	strial Muffler Kit.
			Spec A				
	186-6612	1	* Industrial				
	186-6982	1	Critical				
			Begin Spec B (Critical)				
	186-6982	1	ĞNAA, GNAB				
	186-7063	1	GNAC				

### **Exhaust Flanges**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-3210	1	Kit, Unthreaded Exhaust Flange (Includes Gasket, Flange and	9	155-3211	1	Kit, Flexible Exhaust Pipe (Includes Parts Marked *)
			Screw)	10	186-6683	2	*Gasket
2	186-6683	1	Gasket	11	186-6671	2	*Washer, Spring
3	186-6845	1	Flange, Exhaust	12	186-6672	2	*Screw, Hex Head Cap
4	186-6570	2	Screw, Hex Head Cap				(M10 x 30mm)
5	155-3209	1	Kit, Threaded Exhaust Flange	13	186-6847	1	*Pipe, Flexible Exhaust
			(Includes Gasket, Flange and	14	186-6848	4	*Bolt (3/8" UNF x 1-3/4")
			Screw)	15	186-6843	2	*Flange, Mating
6	186-6683	1	Gasket	16	186-6849	4	*Washer, Spring
7	186-7036	1	Flange, NPT Exhaust	17	186-6900	4	*Nut
8	186-6672	2	Screw, Hex Head Cap (M10 x 1.5 x 30mm)	* -	Parts Include	ed in Flexi	ble Exhaust Pipe Kit.

### **Mounting Base**

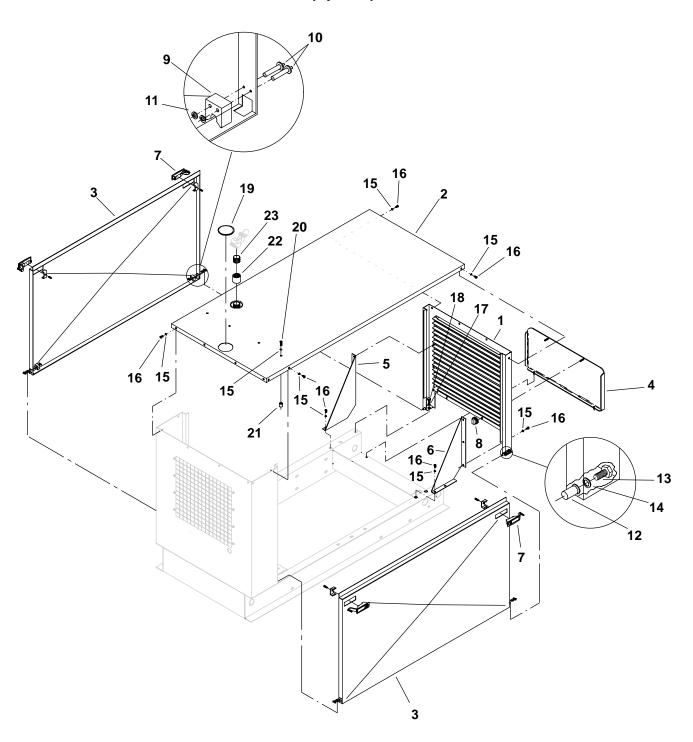


### **Mounting Base**

Kit, Skid Base (Spec A)   22   Cable, Positive Battery	REF NO.	PART NO.	QTY USEC	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
(Includes Parts Marked +)	1			Kit, Skid Base (Spec A)	22			Cable, Positive Battery
403-4282								
Base, Mounting		403-4282	1			186-6333	1	
Base, Mounting		403-4148	1	GNAB		186-6334	1	GNAB, GNAC
+ Spec A 186-7171 1 GNAA  186-6300-00 1 Green 186-7172 1 GNAB  186-6300-06 1 Sandstone 186-7173 1 GNAC  186-6898 1 Begin Spec B 23 +Cable, Negative Battery  3 Screw, Hex Head Cap 186-6336 1 GNAA  186-7046 1 + Spec A (M10 x 1.5 x 80mm) 186-6337 1 GNAB, GNAC  186-6638 1 Begin Spec B 24 186-6301 1 Brace, Rear Engine  (7/16-14 x 3-1/4") 25 186-6449 3 Nut, Hex (7/16")  4 186-6665 8 +Nut, Hex (M10 x 1.5) 26 186-6637 3 Washer, Spring (7/16")  5 186-6619 10 +Washer, Spring (M10) 27 186-6672 8 Screw, Hex Head Cap  Mount Engine (M10 x 1.5 x 30mm)  + Spec A 28 186-6976 8 Washer, Spring (5/15")  186-6304 3 GNAA 29 186-6620 2 Washer, Spring (M12)  186-6303 3 GNAC 31 186-6306 1 Plate, Front Engine	2			Base, Mounting				
186-6300-00       1       Green       186-7172       1       GNAB         186-6300-06       1       Sandstone       186-7173       1       GNAC         186-6898       1       Begin Spec B       23       +Cable, Negative Battery         3       Screw, Hex Head Cap       186-6336       1       GNAA         186-7046       1       + Spec A (M10 x 1.5 x 80mm)       186-6337       1       GNAB, GNAC         186-6638       1       Begin Spec B       24       186-6301       1       Brace, Rear Engine         (7/16-14 x 3-1/4")       25       186-6449       3       Nut, Hex (7/16")         4       186-6665       8       +Nut, Hex (M10 x 1.5)       26       186-6672       8       Screw, Hex Head Cap         6       Mount Engine       (M10 x 1.5 x 30mm)         186-6305       3       GNAA       29       186-6672       8       Washer, Spring (5/15")         186-6304       3       GNAB       30       186-6660       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine						186-7171	1	
186-6898       1       Begin Spec B Screw, Hex Head Cap       23       +Cable, Negative Battery         186-7046       1       + Spec A (M10 x 1.5 x 80mm)       186-6337       1       GNAB, GNAC         186-6638       1       Begin Spec B (7/16-14 x 3-1/4")       24       186-6301       1       Brace, Rear Engine         4       186-6665       8       +Nut, Hex (M10 x 1.5)       25       186-66449       3       Nut, Hex (7/16")         5       186-6619       10       +Washer, Spring (M10)       27       186-6672       8       Screw, Hex Head Cap (M10 x 1.5 x 30mm)         6       Mount Engine       (M10 x 1.5 x 30mm)       (M10 x 1.5 x 30mm)       (M10 x 1.5 x 30mm)         186-6305       3       GNAA       29       186-6620       2       Washer, Spring (M12)         186-6304       3       GNAB       30       186-6666       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine		186-6300-00	1			186-7172	1	GNAB
3         Screw, Hex Head Cap         186-6336         1         GNAA           186-7046         1         + Spec A (M10 x 1.5 x 80mm)         186-6337         1         GNAB, GNAC           186-6638         1         Begin Spec B         24         186-6301         1         Brace, Rear Engine           (7/16-14 x 3-1/4")         25         186-6449         3         Nut, Hex (7/16")           4         186-6665         8         +Nut, Hex (M10 x 1.5)         26         186-6637         3         Washer, Spring (7/16")           5         186-6619         10         +Washer, Spring (M10)         27         186-6672         8         Screw, Hex Head Cap           Mount Engine         (M10 x 1.5 x 30mm)           186-6305         3         GNAA         29         186-6976         8         Washer, Spring (5/15")           186-6304         3         GNAB         30         186-6660         2         Nut, Lock (M12 x 1.75)           186-6303         3         GNAC         31         186-6306         1         Plate, Front Engine		186-6300-06	1	Sandstone		186-7173	1	GNAC
3         Screw, Hex Head Cap         186-6336         1         GNAA           186-7046         1         + Spec A (M10 x 1.5 x 80mm)         186-6337         1         GNAB, GNAC           186-6638         1         Begin Spec B         24         186-6301         1         Brace, Rear Engine           (7/16-14 x 3-1/4")         25         186-6449         3         Nut, Hex (7/16")           4         186-6665         8         + Nut, Hex (M10 x 1.5)         26         186-6637         3         Washer, Spring (7/16")           5         186-6619         10         + Washer, Spring (M10)         27         186-6672         8         Screw, Hex Head Cap (M10 x 1.5 x 30mm)           6         Mount Engine         (M10 x 1.5 x 30mm)         (M10 x 1.5 x 30mm)         Washer, Spring (5/15")           186-6305         3         GNAA         29         186-6620         2         Washer, Spring (M12)           186-6304         3         GNAB         30         186-6666         2         Nut, Lock (M12 x 1.75)           186-6303         3         GNAC         31         186-6306         1         Plate, Front Engine		186-6898	1	Begin Spec B	23			+Cable, Negative Battery
186-6638       1       Begin Spec B (7/16-14 x 3-1/4")       24       186-6301       1       Brace, Rear Engine         4       186-6665       8       +Nut, Hex (M10 x 1.5)       26       186-6637       3       Washer, Spring (7/16")         5       186-6619       10       +Washer, Spring (M10)       27       186-6672       8       Screw, Hex Head Cap (M10 x 1.5 x 30mm)         6       Mount Engine       (M10 x 1.5 x 30mm)         +       Spec A       28       186-6976       8       Washer, Spring (5/15")         186-6305       3       GNAA       29       186-6620       2       Washer, Spring (M12)         186-6304       3       GNAB       30       186-6666       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine	3			Screw, Hex Head Cap		186-6336		
(7/16-14 x 3-1/4") 25 186-6449 3 Nut, Hex (7/16")  4 186-6665 8 +Nut, Hex (M10 x 1.5) 26 186-6637 3 Washer, Spring (7/16")  5 186-6619 10 +Washer, Spring (M10) 27 186-6672 8 Screw, Hex Head Cap		186-7046	1	+ Spec A (M10 x 1.5 x 80mm)		186-6337	1	GNAB, GNAC
4       186-6665       8       +Nut, Hex (M10 x 1.5)       26       186-6637       3       Washer, Spring (7/16")         5       186-6619       10       +Washer, Spring (M10)       27       186-6672       8       Screw, Hex Head Cap (M10 x 1.5 x 30mm)         6       Mount Engine       28       186-6976       8       Washer, Spring (5/15")         186-6305       3       GNAA       29       186-6620       2       Washer, Spring (M12)         186-6304       3       GNAB       30       186-6666       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine		186-6638	1	Begin Spec B	24	186-6301	1	Brace, Rear Engine
5       186-6619       10       +Washer, Spring (M10)       27       186-6672       8       Screw, Hex Head Cap (M10 x 1.5 x 30mm)         6       Mount Engine       28       186-6976       8       Washer, Spring (5/15")         186-6305       3       GNAA       29       186-6620       2       Washer, Spring (M12)         186-6304       3       GNAB       30       186-6666       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine				(7/16-14 x 3-1/4")	25	186-6449	3	Nut, Hex (7/16")
5       186-6619       10       +Washer, Spring (M10)       27       186-6672       8       Screw, Hex Head Cap (M10 x 1.5 x 30mm)         6       Mount Engine       28       186-6976       8       Washer, Spring (5/15")         186-6305       3       GNAA       29       186-6620       2       Washer, Spring (M12)         186-6304       3       GNAB       30       186-6666       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine	4	186-6665	8	+Nut, Hex (M10 x 1.5)	26	186-6637	3	Washer, Spring (7/16")
+ Spec A 28 186-6976 8 Washer, Spring (5/15")  186-6305 3 GNAA 29 186-6620 2 Washer, Spring (M12)  186-6304 3 GNAB 30 186-6666 2 Nut, Lock (M12 x 1.75)  186-6303 3 GNAC 31 186-6306 1 Plate, Front Engine	5	186-6619	10		27	186-6672		
186-6305       3       GNAA       29       186-6620       2       Washer, Spring (M12)         186-6304       3       GNAB       30       186-6666       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine	6			Mount Engine				(M10 x 1.5 x 30mm)
186-6305       3       GNAA       29       186-6620       2       Washer, Spring (M12)         186-6304       3       GNAB       30       186-6666       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine					28	186-6976	8	
186-6304       3       GNAB       30       186-6666       2       Nut, Lock (M12 x 1.75)         186-6303       3       GNAC       31       186-6306       1       Plate, Front Engine		186-6305	3	GNAA	29	186-6620		
186-6303 3 GNAC 31 186-6306 1 Plate, Front Engine		186-6304		GNAB	30	186-6666	2	
		186-6303		GNAC	31	186-6306		
Degin Opec D 32 100-0074 2 3016W, 116X 116AU CAP				Begin Spec B	32	186-6674	2	Screw, Hex Head Cap
402-0676-01 3 ĞNAA, GNAB (M12 x 1.75 x 55mm)		402-0676-01	3					
					33	416-1042	1	Kit, Battery Vent Hose (Includes
7 186-6676 8 +Screw, Hex Head Cap Parts Marked * and	7	186-6676	8	+Screw, Hex Head Cap				
(M10 x 1.5 x 20mm) Washers/Nuts)								
8 186-6379 4 + Washer, Rebound 34 332-0611 1 Block, Terminal (Use With	8	186-6379	4	+Washer, Rebound	34	332-0611	1	Block, Terminal (Use With
9 +Foot, Sliding Detector Control)								
186-6307-00 1 Green 35 332-1043 2 Jumper, Terminal Block (Use		186-6307-00	1		35	332-1043	2	
186-6307-06 1 Sandstone With Detector Control)		186-6307-06	1	Sandstone				
	10	186-6623	3	+Washer, EIT (5/16")	36	186-6020	2	Nut, Hex (M8 x 1.25) (Úse With
11 186-6668 1 +Screw, Hex Head Cap Detector Control)	11	186-6668	1					
(M8 x 1.25 x 16mm) 37 186-6371 2 Washer, Lock (M4) (Use With				•	37	186-6371	2	
12 186-6340 1 + Cable, Ground Detector Control)	12	186-6340	1					
13 186-6669 1 +Screw, Hex Head Cap 38 186-6370 2 Screw, Machine	13		1		38	186-6370	2	,
(M8 x 1.25 x 25mm) (M4 x 0.7 x 16mm)								
14 186-6274 2 +Nut, Hex (M8 x 1.25) (Use With Detector Control)	14	186-6274	2					
15 517-0138-08 4 Plug, Holè (Begin Spec B) 39 186-6369 1 Bracket, Mounting (Use With	15	517-0138-08			39	186-6369	1	
16 517-0138-07 1 Plug, Hole (Begin Spec B) Detector Control)	16		1					
17 186-6019 1 +Washer, Spring (M8) 40 186-6618 1 Washer, Spring (M8) (Use With			1		40	186-6618	1	
18 186-6406 2 +*Bolt, Hold-Down (1/4-20) Detector Control)							•	
19 186-6854 1 +*Cap								
20 186-6853 1 +*Hose (5/16 ID x 15)								
21 186-6835 1 +*Hold-Down, Battery + - Parts Included in Skid Base Kit (Spec A)								

<sup>\* -</sup> Parts Included in Battery Vent Hose Kit.

### Housing (F1) (Spec A)



### Housing (F1) (Spec A)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, Housing (Includes Parts	7	186-6611	4	*Latch, Lockable Lever
			Marked *)	8	140-2761	2	*Knob, Air Cleaner
	405-5815	1	GNAA	9	405-1872	4	*Clip, Door
	405-5816	1	GNAB, GNAC	10	818-0150	8	*Rivet, Pivot Block
1			*Panel, Rear	11	526-0003	8	*Washer, Rivet
	186-6322-00	1	Green	12	870-0258	4	*Pin, Door Pivot
	186-6322-06	1	Sandstone	13	186-6664	4	*Screw, Hex Head Cap
2			*Panel, Top				(1/4-20 x 1/2")
			GNAA	14	186-6974	4	*Washer, Flat Spring (M6)
	186-6378-00	1	Green	15	186-6975	24	Washer, Flat (M8)
	186-6378-06	1	Sandstone	16	186-6668	24	*Screw, Hex Head Cap
			GNAB, GNAC				(M8 x 1.25 x 16mm)
	186-6324-00	1	Green	17	186-6976	2	Washer, Spring Flat (M10)
	186-6324-06	1	Sandstone	18	186-6676	2	Screw, Hex Head Cap
3			*Door, Housing				(M10 x 1.5 x 20mm)
	186-6320-00	2	Green	19	186-6640	1	Plug, Button (4")
	186-6320-06	2	Sandstone	20	186-6670	4	Screw, Hex Head Cap
4			*Cover, Battery				(M8 x 1.25 x 40mm)
	186-6323-00	1	Green	21	186-6641	4	Spacer
	186-6323-06	1	Sandstone	22	186-6616	1	Coupling, Pipe
5			*Strut, Right Side Housing	23	186-6299	1	Nipple, Close
	186-6326-00	1	Green				
	186-6326-06	1	Sandstone	*	<b>5</b>		. 10
6			*Strut, Left Side Housing	* -	Parts Include	a in Hous	sing Kits.
	186-6325-00	1	Green				
	186-6325-06	1	Sandstone				

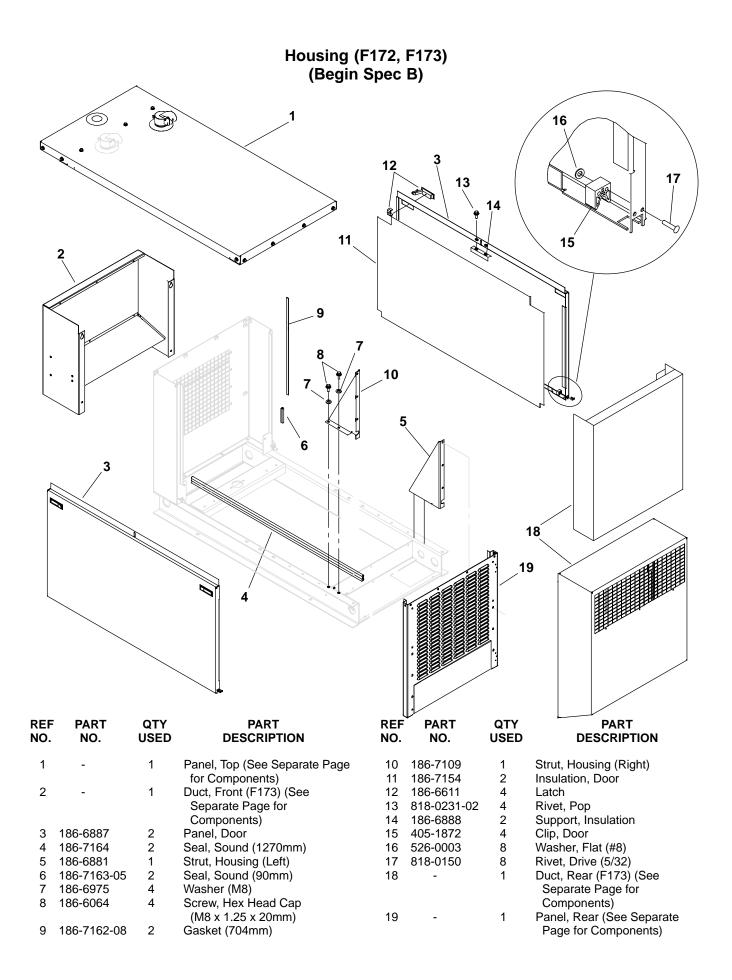
#### Housing (F183, F184) (Begin Spec B) 10 8 20 11 19 17 16 18 13 **REF PART** QTY **PART REF PART QTY PART USED DESCRIPTION USED** NO. NO. NO. NO. **DESCRIPTION** Plug, Button (4") 186-6899 Panel, Rear 186-6640 1 11 1 2 821-6007-02 24 Screw, Hex Head Sems 12 140-2761 3 Knob (M8 x 1.25 x 20mm) 186-6896 Cover, Battery 13 1 186-6634 Cap, Rain 186-6975 Washer (M8) 3 6 Shield, Rain 186-6064 Screw, Hex Head Cap 4 186-7147 1 15 6 5 Panel, Top (M8 x 1.25 x 20mm) 186-6892 1 **GNAA** 16 870-0258 4 Rivet, Pivot Block GNAB, GNAC Washer, Flat (M6) 186-6893 1 17 186-6974 4 Screw, Hex Head Cap 186-6611 4 186-6664 4 6 Latch 18 186-6887 2 Panel, Door (1/4-20 x 1/2") 7 8 Washer, Flat (#8) 8 526-0003 19 186-6881 1 Strut, Housing (Left) 4 Strut, Housing (Right) 9 405-1872 Clip, Door 20 186-7109 1

818-0150

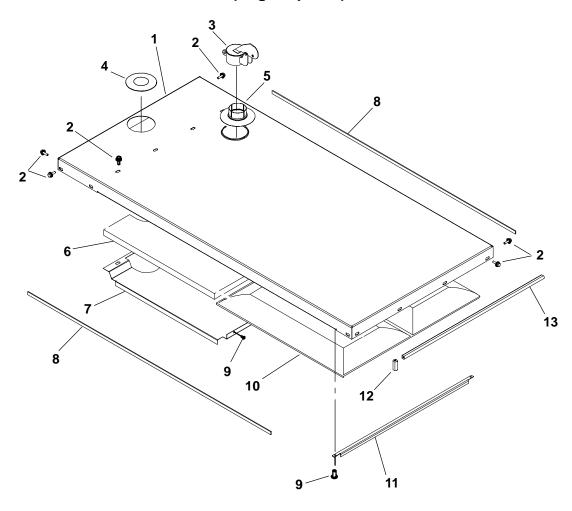
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Rivet, Drive (5/32)

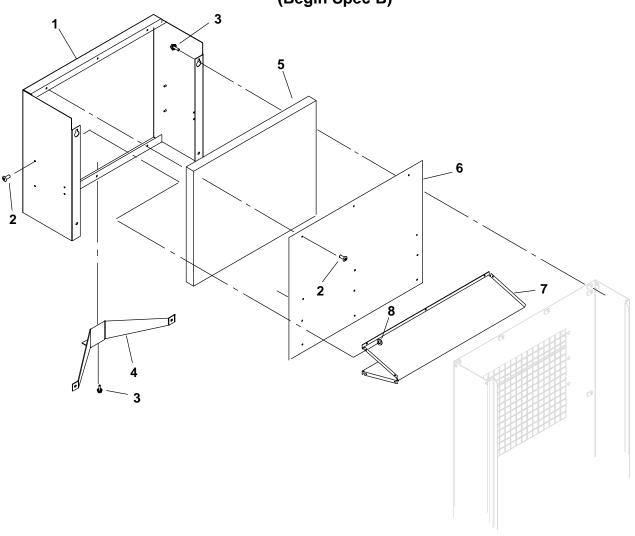


Housing - Top Panel (F172, F173) (Begin Spec B)



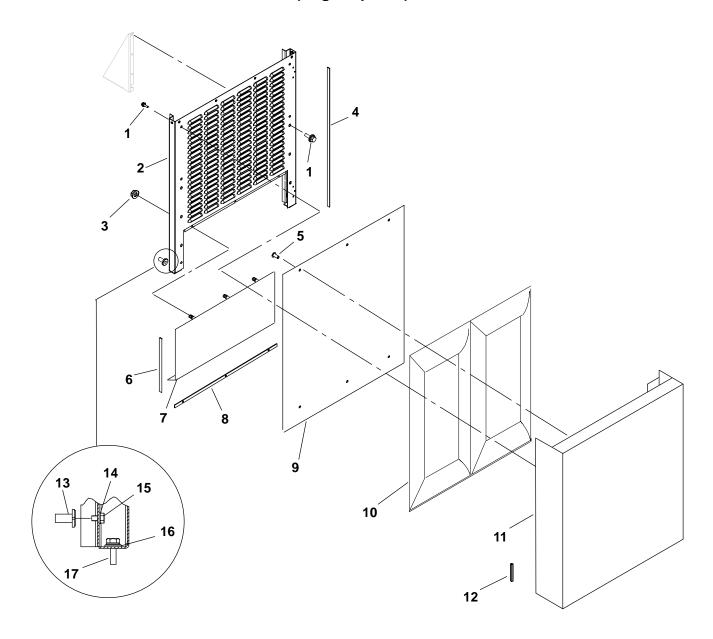
REF	PART	QTY	PART	REF	PART	QTY	PART
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1			Panel, Top	9			Rivet, Pop
	186-6892	1	GNAA		818-0231-02	10	Type I, II Control (MnI/Rmt)
	186-6893	1	GNAB, GNAC		818-0231-02	4	Type III Control (Detector)
2	821-6007-02	18	Screw, Hex Head Sems	10	186-7156	1	Insulation (Used With Manual/
			(M8 x 1.25 x 20mm)				Remote Controls Only -
3	186-6634	1	Cap, Rain				Type I, II)
4	186-6640	1	Button, Plug (4")	11	186-7152	3	Support, Insulation (Used With
5	186-7147	1	Shield, Rain				Manual/Remote Controls
6	186-7155	1	Insulation, Front Top				Only - Type I, Type II)
7	186-7151	1	Support, Insulation	12	186-7163-02	1	Seal, Sound (38mm) (F173)
8	186-7162-02	2	Gasket (1231mm)	13	186-7163-04	1	Seal, Sound (707mm) (F173)

Housing - Front Duct (F173) (Begin Spec B)



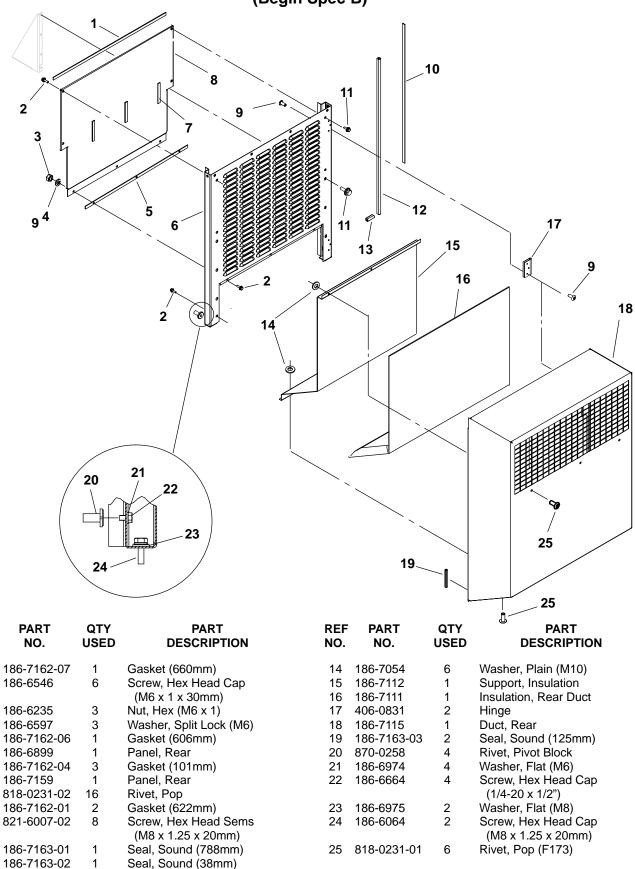
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Duct, Front	4			Strut, Duct
	186-7100	1	GNAA, GNAB		186-7119-02	1	GNAA, GNAB
	186-7158	1	GNAC		186-7119-04	1	GNAC
2			Rivet, Pop	5	186-7122	1	Insulation, Duct
	818-0231-01	6	GNAA, GNAB	6	186-7149	1	Support, Insulation (Front)
	818-0231-01	20	GNAC	7	186-7153	1	Baffle, Front DuctGNAC
3	821-6007-02	5	Screw, Hex Head Sems (M8 x 1.25 x 20mm)	8	186-7054	14	Washer, Plain (#10)GNAC

## Housing - Rear Panel (F172) (F173GNAA, GNAB) (Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Screw, Hex Head Sems	8	186-7162-06	2	Gasket (606mm)
			(M8 x 1.25 x 20mm)	9	186-7150	1	Support, Rear Insulation (F173)
	821-6007-02	6	F172 Housing	10	186-7156	1	Insulation, Rear Duct (F173)
	821-6007-02	8	F173 Housing	11	186-7101	1	Duct, Rear (F173)
2	186-6899	1	Panel, Rear	12	186-7163-03	2	Seal, Sound (125mm)
3	140-2761	3	Knob, Air Cleaner	13	870-0258	4	Rivet, Pivot Block
4	186-7162-01	2	Gasket (622mm)	14	186-6974	4	Washer, Flat (M6)
5	818-0231-01	6	Rivet, Pop (F173)	15	186-6664	4	Screw, Hex Head Cap
6	186-7162-03	2	Gasket (660mm)				(1/4-20 x 1/2")
7			Cover, Battery	16	186-6975	2	Washer, Flat (M8)
			F172	17	186-6064	2	Screw, Hex Head Cap
	186-6896	1	GNAA, GNAB				(M8 x 1.25 x 20mm)
	186-7116	1	GNAC				,
	186-6896	1	F173 GNAA, GNAB				

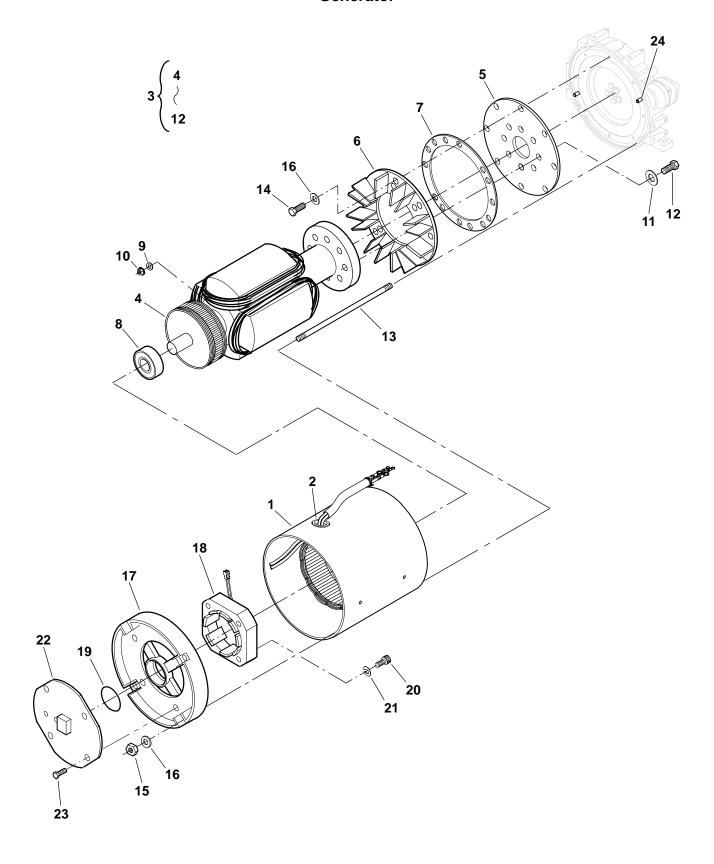
### Housing - Rear Panel (F173GNAC) (Begin Spec B)



**REF** 

NO.

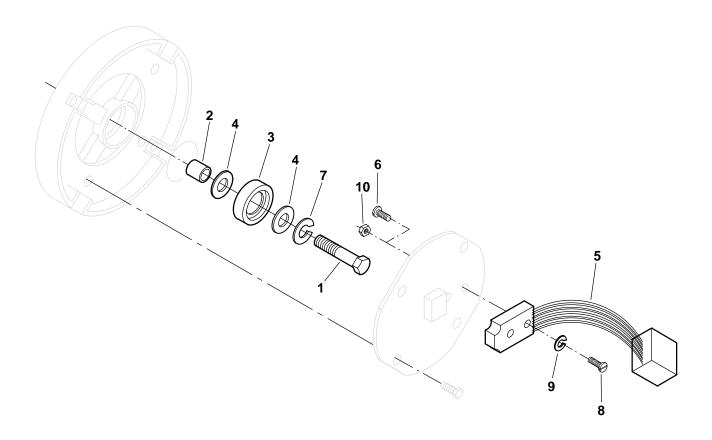
### Generator



### Generator

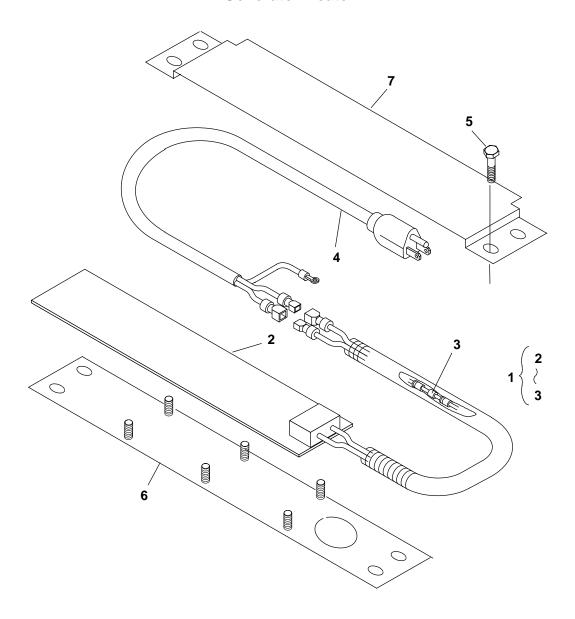
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Stator (Includes Grommet)	4	201-3515-01	1	*Rotor, Exciter
			Single Phase	5	232-3953-03	1	*Disc, Drive
	220-4524-02	1	ĞNAA	6	205-0229-02	1	*Fan, Generator
	220-4524-03	1	GNAB	7	232-3727-02	1	*Spacer, Drive Disc
	220-4524-04	1	GNAC	8	510-0173	1	*Bearing, Ball
			Three Phase	9	526-0399-11	2	*Washer, Flat (#10)
			Up to 480V	10	870-0131-01	2	*Nut, ET Hex (#10)
			Standard Stack	11	526-0399-73	6	*Washer, Flat (M12)
	220-4525-02	1	GNAA	12	800-3017-52	6	*Bolt, Hex Head Cap
	220-4525-03	1	GNAB				(M12 x 1.75 x 20mm)
	220-4525-04	1	GNAC	13			Stud
			Extended Stack				Extended Stack
	220-4525-03	1	GNAA		520-1004-03	4	GNAA
	220-4525-04	1	GNAB		520-1004-04	4	GNAB
	220-4525-06	1	GNAC		520-1004-06	4	GNAC
			+ 600V (Standard Stack)				Standard Stack
	220-4529-02	1	GNAA		520-1004-02	4	GNAA
	220-4529-03	1	GNAB		520-1004-03	4	GNAB
	220-4529-04	1	GNAC		520-1004-04	4	GNAC
2	508-0183	1	Grommet	14	800-3017-38	8	Screw, Hex Head Cap
3			Rotor Assy (Includes Parts				(M10 x 1.5 x 30mm)
			Marked *)	15	862-0026-07	4	Nut, Hex (3/8-16)
			Single Phase	16	526-0399-42	12	Washer, Flat (7/8")
	201-3556-02	1	GNAA	17	211-0464	1	Endbell
	201-3556-03	1	GNAB	18	220-4413-03	1	Stator, Exciter
	201-3556-04	1	GNAC	19	509-0143	1	O'Ring, Seal
			Three Phase	20	802-0038	1	Screw (1/4-20)
			Standard Stack (B256)	21	850-0114-05	2	Washer, Lock (1/4")
	201-3556-02	1	GNAA	22	234-0957-02	4	Cover, Inlet
	201-3556-03	1	GNAB	23	821-0001-01	4	Screw, Lock Head Flange
	201-3556-04	1	GNAC				(3/16-24 x .38")
			Extended Stack (B268)	24	186-6498	2	Pin, Dowel
	201-3556-03	1	GNAA				
	201-3556-04	1	GNAB	*	Danta In alice I	:- D-/	A = =
	201-3556-06	1	GNAC	^ -	Parts Included	in Kotoi	ASSy.

### Overspeed



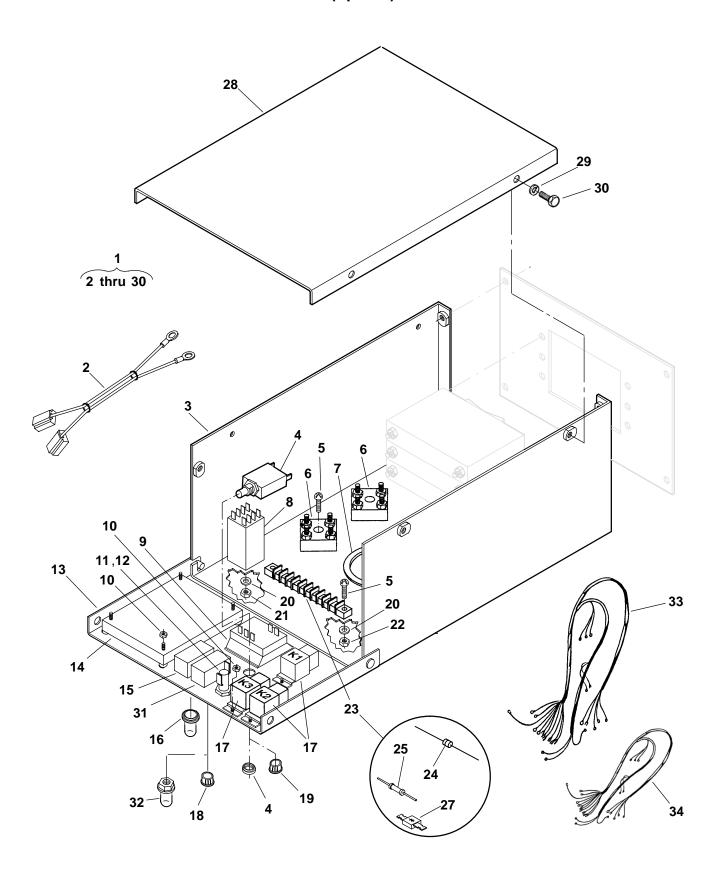
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0515	1	Screw, Hex Head Cap	7	850-0050	1	Washer, Lock (3/8")
			(3/8-16 x 1-3/4)	8	815-0865-13	2	Screw, Pan Head Machine
2	191-2131	1	Spacer				(M4 x .7 x 45mm)
3	166-0767	1	Rotor, Ignition	9	850-2004	2	Washer, Lock (M4)
4	526-0124	2	Washer, Flat (3/8')	10	860-2005	2	Nut, Hex (M4 x .7)
5	300-4324	1	PCB Assy, Overspeed				
6	815-0849	2	Screw, IT Cross Recessed (#6-32 x 3/4")				

### **Generator Heater**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Heater Assy, Generator	4			Cable, Control Heater
			(Includes Heater and Splice)		335-0110	1	120V
	300-5137-01	1	120V		335-0178	1	208/240V
	300-5137-02	1	208/240V	5	815-0578	4	Screw, Hex Washer Head
2			Heater, Control (120V)				(M6 x 1 x 12.7)
	333-0550-01	1	120V	6	232-3832	1	Plate, Heater Mounting
	333-0550-02	1	208/240V	7	232-3828	1	Cover, Heater
3	332-1789	2	Splice, Window (18 Gauge)				

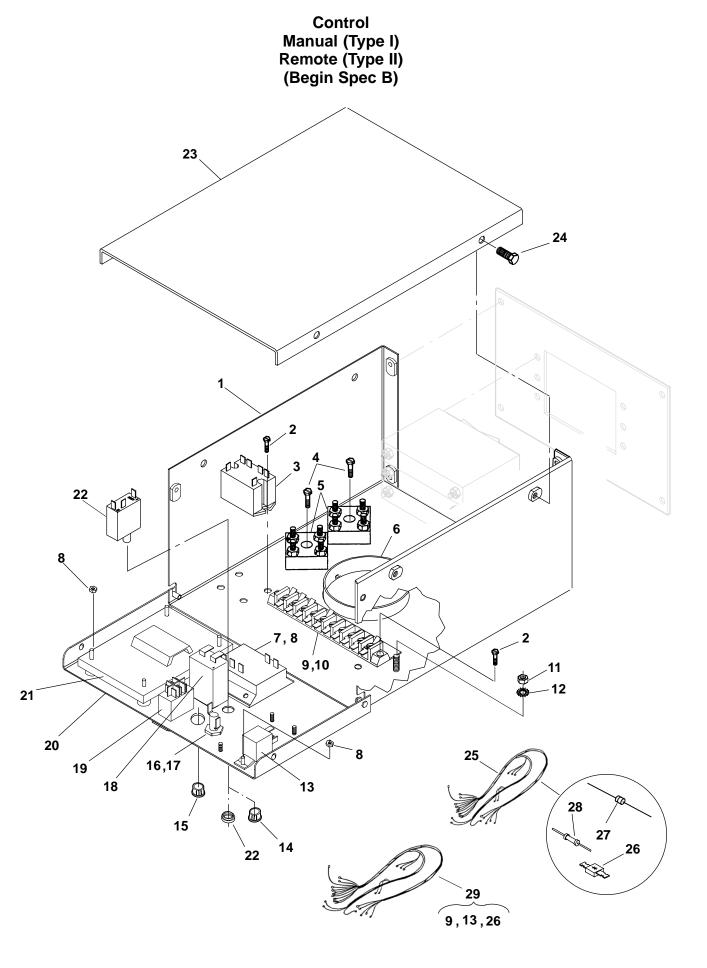
Control Manual (Type I) Remote (Type II) (Spec A)



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### Control Manual (Type I) Remote (Type II) (Spec A)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1			Box Assy, Control (Includes	19	186-6357	1	*Plug, Plastic (Manual)
			Parts Marked *)	20			*Washer (#6)
	186-6360	1	Manual		186-6663	4	Manual
	186-6363	1	Remote		186-6663	5	Remote
2	186-6341	1	*Harness, Voltage Sensing	21	186-6832	1	*Nut (6/32) (Remote)
3	186-6310	1	*Box, Control	22			*Nut (M4)
4	320-1139	1	*Breaker, Circuit (DC) (Remote		186-6831	4	Manual
			(Includes Mounting		186-6831	8	Remote
			Hardware 3/8-32 Thread)	23	186-6356	1	*Block, DC Terminal
5	186-6652	4	*Screw, Phillister Head Machine	24	186-6859	1	*Diode Assy, Zener (3.6V, 5W)
			(M4 x .7 x 16mm)				(Remote)
6	332-3249	2	*Block, AC Terminal	25	186-6861	1	*Resistor Assy, Metal Oxide
7	186-6359	1	*Grommet				(Remote)
8	186-6833	1	*Relay (Remote)	26	186-6834	1	*Washer (9mm) (Remote)
9	307-2871	1	*Timer, Control Unit (Remote)	27	186-6860	2	*Diode Assy (Manual)
10			*Nut, Lock (M5)	28	186-6349	1	*Cover, Control Box
	186-6912	6	Manual	29	186-6617	10	*Washer, Flat Spring (M6)
	186-6912	7	Remote	30	186-6621	10	*Screw, Hex Head Cap
11	321-0175	1	*Holder, Fuse				(M6 x 10mm)
12	321-0253	1	*Fuse	31	186-6388	1	+Switch, Off/On Toggle
13	186-6347	1	*Panel, Control	32	186-6298	1	+Seal, Switch
14	305-0844	1	*Regulator, Voltage	33	186-6331	1	Harness, Engine
15			*Switch, On/Off/Start	34			*Harness, Panel
	186-6354	1	Manual		186-6382	1	Manual
	186-6362	1	Remote		186-6383	1	Remote
16	186-6298	1	*Boot, On/Off/Start Switch				
17			*Relay, Fault				
	307-2817-01	1	Manual		Parts Include		
	307-2817-01	3	Remote	+ -		ed in Manu	al Preheat Kit Listed on Preheat
18	186-6358	1	*Plug, Plastic (Preheat)		Kit Page.		

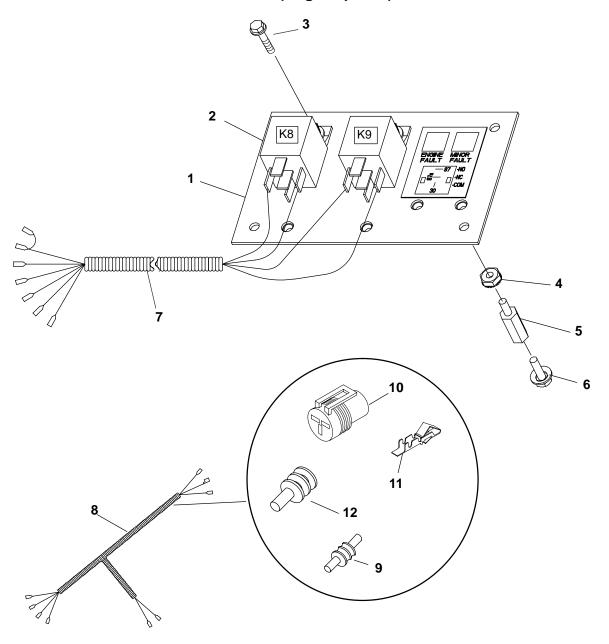


### Control Manual (Type I) Remote (Type II) (Begin Spec B)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
NO.	NO.	USED	DESCRIPTION	NO.	NO.	USED	DESCRIPTION
1	319-3321	1	Box, Control	18	302-2002	1	Meter, Hour
2		1	Screw (M4 x .7 x 20mm)				(Remote Only)
	815-0925-01	2	Manual	19			Switch, On/Off/Start (S12)
	815-0925-01	4	Remote		308-1086	1	Manual
3	307-2677-03	1	Relay (Remote)		308-1011	1	Remote
4	821-6001-03	2	Screw, Hex Head Sems	20	319-3322	1	Panel, Control
			(M4 x .8 x 16mm)	21	305-0982	1	Regulator, Voltage (VR21)
5	332-3249	2	Block, AC Terminal	22	320-1824-02	1	Breaker, Circuit (DC) (Remote
6	508-1127	1	Bushing, Nylon				Only) (Includes Mounting
7	307-2871	1	Timer, Control Unit (Remote)				Hardware 3/8-32 Thread)
8			Nut, Nylon Lock (M4)	23	319-3326	1	Cover, Control Box
	870-2064-01	5	Manual	24	821-6002-03	6	Screw, Hex Head Sems
	870-2064-01	12	Remote				(M6 x 1 x 16mm)
9	332-3564	1	#Block, DC Terminal	25	338-3735	1	Harness, Engine (Includes
10	332-3573	1	Strip, Marker				Diode, Zener, and Resistor)
11	860-2057	1	Nut, Hex (M6)	26	357-0030	1	#Diode (CR2)
12	856-0006	1	Washer, EIT Lock (1/4")	27	359-0115	1	Zener (3.6V, 5@) (CR1)
13			#Relay, Fault (K14)	28	350-0980	1	Resistor (510O, 2W, 5%)
	307-2817-01	1	Manual	29			Harness, Control (Includes
	307-2817-01	4	Remote				Parts Marked #)
14	517-0131	1	Plug, Plastic (Manual Only)		338-3738	1	Manual
15	517-0133	1	Plug, Plastic		338-3732	1	Remote
16	321-0175	1	Holder, Fuse				
17	321-0353	1	Fuse (20A) (F1)	,,	Parte Included	: Causti	

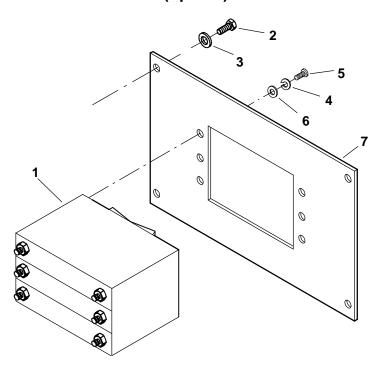
<sup># -</sup> Parts Included in Control Harness.

### Aux Relay Board (Manual/Remote Control) (Begin Spec B)



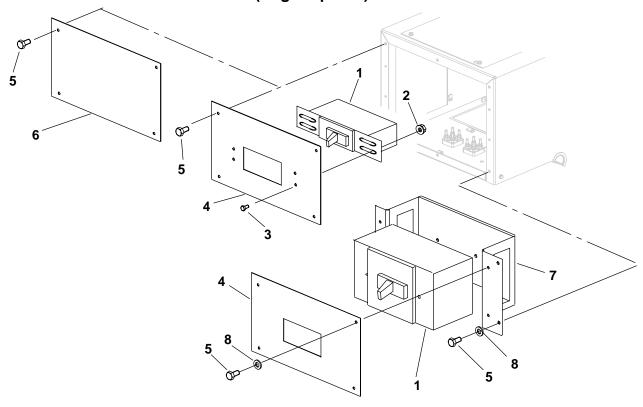
r5RI NO.	EF PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3601-02	1	Panel, Relay	8	338-3743	1	Harness, Dry Contact (Includes
2	307-2817-01	2	Relay (K8, K9) (12V)				Parts Marked)
3	821-6001-02	2	Screw, Hex Head Sem	9	323-1712	AR	*Plug, Cavity
			(M5 x 0.8 x 12mm)	10	323-1765	1	*Housing, Connector (4 Pin)
4	870-0131	4	Nut, ET Sems	11	323-1709	AR	*Termnial, Socket
5	870-2204	4	Standoff, Male/Female Hex (#10-32)	12	323-1708	AR	*Seal, Cable
6 7	821-5000-05 338-3731	4 1	Screw, Hex Head Sems Harness, Control	* -	Parts Include	d in Dry (	Contact Harness.

### Control Box Back Panel Manual (Type I) Remote (Type II) (Spec A)



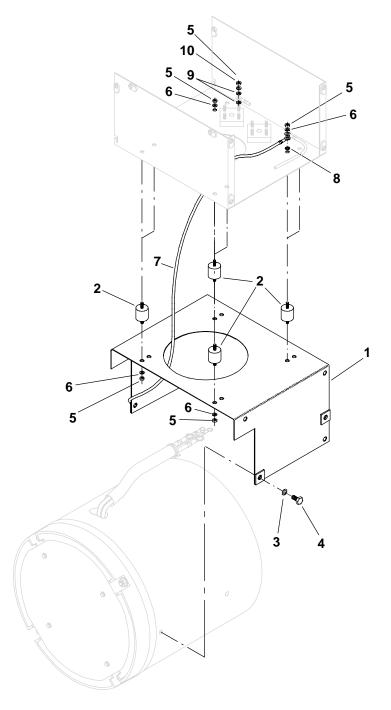
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
		OOLD	DEGOINII NON	110.	110.	OOLD	DEGGINI FIGH
1			Breaker, Circuit		320-1827-10	1	55A
			2 Pole, 240V		320-1827-11	1	60A
	320-1841-01	1	10A		320-1827-12	1	65A
	320-1841-02	1	15A		320-1827-13	1	70A
	320-1841-03	1	20A		320-1827-14	1	75A
	320-1841-04	1	25A		320-1827-15	1	80A
	320-1841-05	1	30A		320-1827-16	1	85A
	320-1841-06	1	35A		320-1827-17	1	90A
	320-1841-07	1	40A		320-1827-18	1	95A
	320-1841-08	1	45A		320-1827-19	1	100A
	320-1841-09	1	50A				600V
	320-1841-10	1	55A		320-1851-01	1	10A
	320-1841-11	1	60A		320-1851-02	1	15A
	320-1841-12	1	65A		320-1851-03	1	20A
	320-1841-13	1	70A		320-1851-04	1	25A
	320-1841-14	1	75A		320-1851-05	1	30A
	320-1841-15	1	80A	2	186-6034	4	Screw (M6 x 1 x 20mm)
	320-1841-16	1	85A	3	186-6591	4	Washer, Flat (M6)
	320-1841-17	1	90A	4			Washer, Lock (#6)
	320-1841-18	1	95A		186-6428	4	2 Pole Circuit Breaker
	320-1841-19	1	100A		186-6428	6	3 Pole Circuit Breaker
			3 Pole	5			Screw (#6-32 x 3/8")
			480V		186-6488	4	2 Pole Circuit Breaker
	320-1827-01	1	10A		186-6488	6	3 Pole Circuit Breaker
	320-1827-02	1	15A	6			Washer, Flat (#6)
	320-1827-03	1	20A		186-6663	4	2 Pole Circuit Breaker
	320-1827-04	1	25A		186-6663	6	3 Pole Circuit Breaker
	320-1827-05	1	30A	7			Panel, Control Box Back
	320-1827-06	1	35A		186-6351	1	W/O Circuit Breaker Hole
	320-1827-07	1	40A				W/Circuit Breaker Hole
	320-1827-08	1	45A		186-6350	1	2 Pole Circuit Breaker
	320-1827-09	1	50A		186-6348	1	3 Pole Circuit Breaker

### Control Box Back Panel Manual (Type I) Remote (Type II) (Begin Spec B)



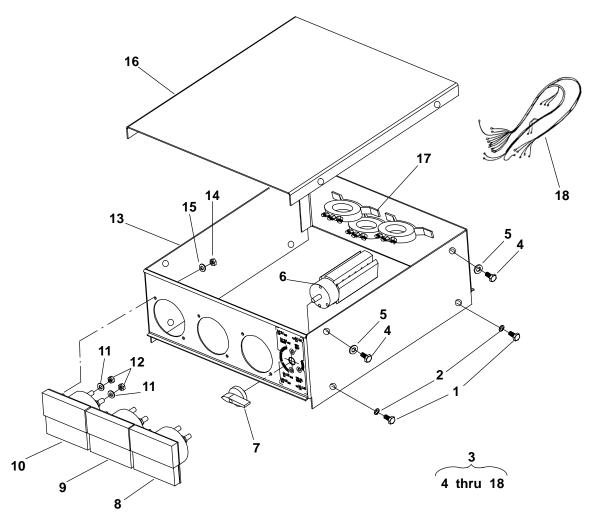
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Breaker, Circuit	2	186-6831	4	Nut, Nylock (M4 x 0.7)
			2 Pole, 240V				(W/2 Pole Circuit Breaker)
	320-2005-11	1	10A	3	186-7078	4	Screw, Hex Head Cap
	320-2005-10	1	15A				(M4 x 0.7 x 16mm)
	320-2005-09	1	20A				(W/2 Pole Circuit Breaker)
	320-2005-08	1	25A	4			Panel, Control Box Back
	320-2005-07	1	30A				(W/Circuit Breaker Hole)
	320-2005-06	1	35A				2 Pole Circuit Breaker
	320-2005-05	1	40A		319-3323	1	15-70A (All Sets)
	320-2005-04	1	45A		319-3325	1	80-125A (GNAC Only)
	320-2005-03	1	50A				3 Pole Circuit Breaker
	320-2005-02	1	60A		319-3824	1	480V Sets
	320-2005-01	1	70A		319-3647	1	600V Sets
	320-2006-04	1	80A	5			Screw, Hex Head Cap
	320-2006-03	1	90A				(M6 x 1 x 16mm)
			3 Pole		186-6546	4	2 Pole CB (and W/O CB)
			480V		186-6546	8	3 Pole CB
	320-2009-11	1	15A	6	319-3324	1	Panel, Control Box Back
	320-2009-10	1	20A				(W/O Circuit Breaker Hole)
	320-2009-09	1	30A	7			Bracket, Circuit Breaker
	320-2009-08	1	40A				(W/3 Pole CB)
	320-2009-06	1	50A		319-3823-02	1	480V Sets
	320-2009-05	1	60A		319-3646-01	1	600V Sets
	320-2009-04	1	70A	8	186-6974	8	Washer, Flat (M6) (W/3 Pole CB)
			600V				,
	320-1959-22	1	15A				
	320-1959-21	1	20A				
	320-1959-20	1	30A				

### Control Mount Manual (Type I) Remote (Type II)



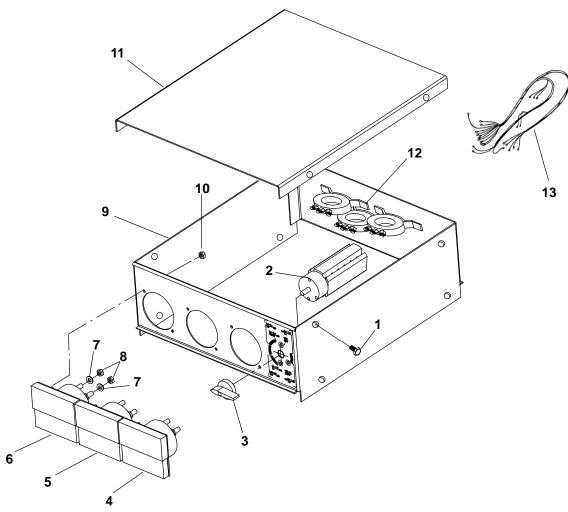
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6352	1	Saddle	5	186-6209	17	Nut, Hex (M6 x 1)
2			Mount, Vibration	6	186-6617	16	Washer, Spring (M6)
	186-6311	4	2 Cylinder	7	186-6339	1	Strap, Ground
	186-6979	4	3/4 Cylinder	8	186-6635	1	Washer, EIT (1/4")
3	186-6623	4	Washer, EIT (5/16")	9	186-6591	16	Washer, Flat (M6)
4	186-6622	4	Screw (M8 x 1.25 x 16mm)	10	186-6597	8	Washer, Lock (M6)

# Meter Panel Manual (Type I) Remote (Type II) (Spec A)



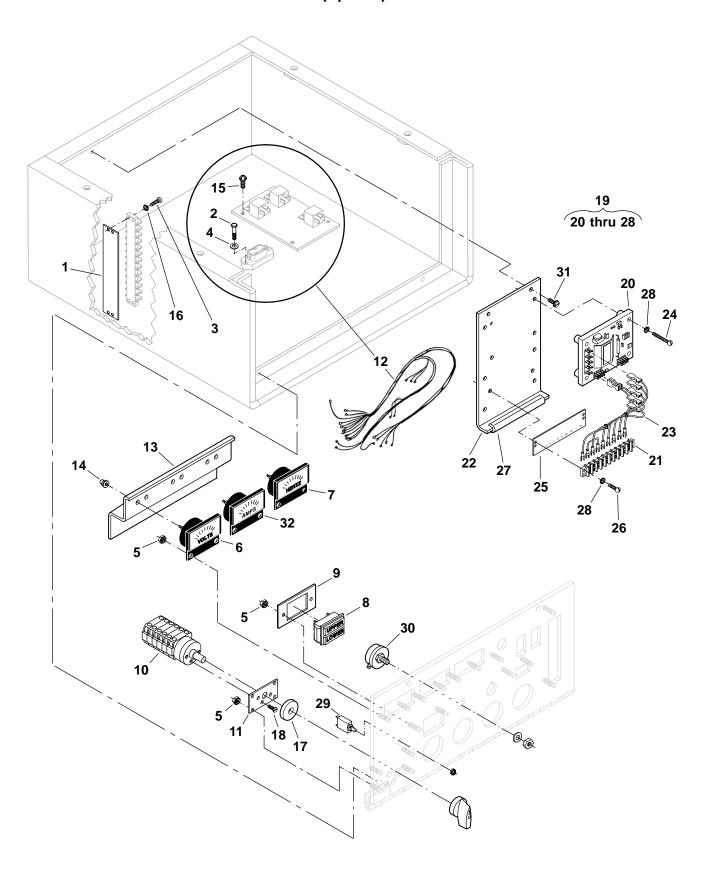
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, Meter Panel	8	302-1148	1	+Meter, Volt
	300-5053-01	1	0-15 or 0-30 Amps	9			+Ammeter
	300-5053-02	1	0-50 or 0-100 Amps		302-2033	1	15/30A
1	186-6621	8	Screw, Hex Head Cap		302-1473	1	50/100A
			(M6 x 1 x 10mm)	10	302-1968	1	+Meter, Frequency
2	186-6974	8	Washer (M6)	11	186-7030	8	+Washer (1/4")
3			Box, Control (Includes Parts	12	186-7050	8	+Nut, Hex (1/4-28)
			Marked +)	13	186-6863	1	+Box, AC Control
	186-6867-01	1	15A Ammeter	14	186-7040	6	+Nut (4-40)
	186-6867-02	1	30A Ammeter	15	186-7041	6	+Washer (#4)
	186-6867-03	1	50A Ammeter	16	186-6862	1	+Cover, AC Control
	186-6867-04	1	100A Ammeter	17			+Transformer, Current
4	186-6621	4	+Screw, Hex Head Cap		302-2034-03	3	W/15-30A Ammeter
			(M6 x 1 x 10mm)		302-2034-02	3	W/50-100A Ammeter
5	186-6974	4	+Washer (M6)	18	186-6864	1	+Harness, Wiring
6	308-1052	1	+Switch, Phase Selector (Includes Knob)				•
7	308-1082	1	+Knob, Selector Switch	+ -	Parts Included	in Cont	rol Box.

### Meter Panel Manual (Type I) Remote (Type II) (Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-6002-03	4	Screw, Hex Head Sems	7	186-6933	6	Washer (1/4")
			(M6 x 1 x 16mm)	8	186-7050	6	Nut, Hex (1/4-28)
2	308-1052	1	Switch, Phase Selector	9	300-5215-04	1	Box, AC Control
			(Includes Knob)	10	870-1220	6	Nut (4-40)
3	308-1082	1	Knob, Selector Switch	11	300-5214-02	1	Cover, AC Control
4	302-1148	1	Meter, Volt	12			Transformer, Current
5			Ammeter		302-2034-03	3	W/15-30A Ammeter
	302-2033	1	15/30A		302-2034-02	3	W/50-100A Ammeter
	302-1473	1	50/100A	13	338-3775	1	Harness, AC Control
6	302-1968	1	Meter, Frequency				

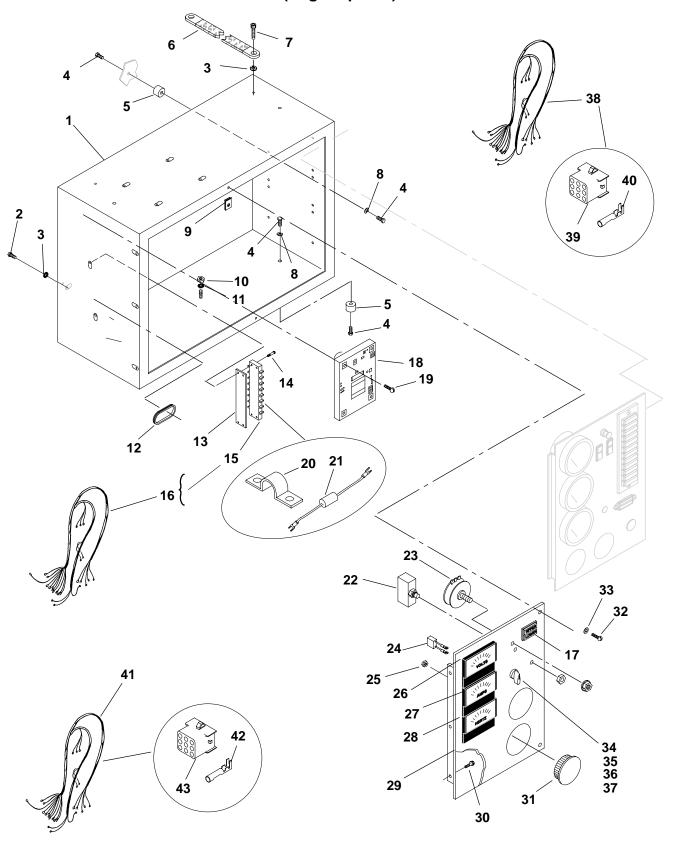
AC Detector Control (Type III) (Spec A)



## AC Detector Control (Type III) (Spec A)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
		0022				0022	
1	332-2723	1	Strip, Marker	13	319-2144	1	Cover, Meter
2	800-2033-01	4	Screw, Hex Head Cap	14	870-0439	6	Nut, Acorn (1/4-28)
			(M6 x 1 x 16mm)	15	815-0550	4	Screw, IT Phillips Cross
3	812-0028	2	Screw, Round Head Machine				Recessed (#6-32 x 3/8")
			(#4-40 x 5/16")	16	853-0003	2	Washer, ET Lock (#4)
4	526-0422	4	Washer, Nylon Retainer	17	308-1056	1	Gasket, Switch
5	870-1220	14	Nut, ET Hex (#4-40)	18	815-0875-02	3	Screw, Pan Head Machine
6			Meter, AC Volt (M21)				(M4 x 0.7 x 8mm)
	302-1148	1	Up to 480V	19	305-0949	1	Regulator Assy, Voltage (VR21)
	302-1753	1	600V				(Includes Parts Marked *)
7	302-1968	1	Meter, Frequency (M23)	20	305-0844	1	*Regulator, Voltage (VR21)
8	322-0363	1	Lamp, Over/Under	21	332-0751	1	*Block, Terminal (10 Place)
			(DS21, DS22)	22	305-0884	1	*Plate, Voltage Regulator
9	319-2141	1	Bracket, Lamp				Mounting
10	308-1052	1	Switch, Rotary (Volt & Ammeter)	23	338-3481	1	*Harness, Regulator
11	319-2490	1	Bracket, Switch	24	812-0084	4	*Screw (#8-32 x 1")
12	338-2992-01	1	Harness, Control (Includes the	25	332-3247	1	*Strip, Marker
			Following Indented Parts)	26	812-0082	2	*Screw (#8-32 x 3/4")
	321-0330	1	Holder Assy, Fuse	27	508-0139	1	*Channel, Rubber
	332-0607	1	Block, Terminal	28	835-0005	6	*Washer, ET (#8)
	821-0040	3	Screw, Lock Head Flange	29	320-1688-01	1	Breaker, Circuit (CB21)
			(#10-32 x 5/16")	30	303-0261	1	Potentiometer (R21)
	307-2817-02	3	Relay	31	815-0428	2	Screw, ET Pan Head
	319-2140	1	Plate, Relay				(#10-32 x 3/8")
	323-1633-02	1	Connector, Receptacle	32			Ammeter (M22)
			(12 Pin)		302-1473	1	0-50, 0-100
	323-1633-01	1	Connector, Receptacle (12 Pin)		302-2033	1	0-15, 0-30
	323-1591	3	Plug, Connector				
	350-1222	1	Resistor Assy	* –	Parts Included	in Volta	ge Regulator Assy.
	323-1581	2	Wedge, Receptacle				
	323-1302	8	Pin, Contact				
	323-1308	1	Housing, PCB (12 Pin)				
	323-1200-01	15	Contact, Socket				
	323-1304	2	Housing, Connector (6 PI)				
	323-1306	1	Housing, Connector (8 Pl)				

## AC Detector Control (Type III) (Begin Spec B)



## AC Detector Control (Type III) (Begin Spec B)

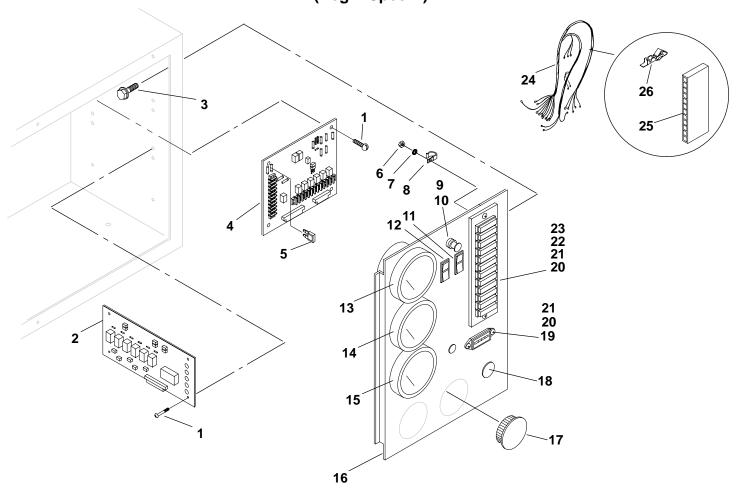
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3030	1	Box, Control	23	303-0261	1	Potentiometer
2	815-0905-08	1	Screw, Pan Head Cross Recessed (#10-32 x 7/8")	24	355-0189	1	Capacitor, Voltmeter (.1 Mfd., 500 WVDC) (C21)
3	856-0008	2	Washer, EIT Lock (5/16")	25	870-1220	6	Nut, Hex (#4-40)
4	821-0014	8	Screw, Hex Head Cap (5/16-18 x 3/8")	26	302-1148	1	Voltmeter, AC (M21) 0-300/600
5	402-0527	4	Isolator, Vibration		302-1753	1	0-0750
6	337-0049	1	Strap, Ground	27	00200	•	Ammeter, AC (M22)
7	821-0014	1	Screw, Hex Head Cap		302-2033	1	0-15, 0-30
			(5/16-18 x 1/2")		302-1473	1	0-50, 0-100
8	850-0045	4	Washer, Spring Lock (5/16)	28	302-1968	1	Meter, Frequency (M23)
9	406-0332	2	Receptacle, Fastener	29	301-9054-01	1	Door, AC Control
10	871-0015	1	Nut, Hex (1/4-20)	30	821-0004	3	Screw, Hex Washer Head Self-
11	526-0018	1	Washer, Flat (1/4")				Locking (#10-32 x 5/16")
12	508-0051	1	Grommet (Fits 2" Hole)	31	517-0302	1	Grommet (Fits 2-1/2" Hole)
13	332-2723	1	Strip, Marker	32	406-0333	2	Stud, Fastener
14	815-0901-06	2	Screw, Cross Recessed	33	406-0334	2	Washer, Stud Retainer
			Thread Forming (#6-32 x 5/8")	34	853-0008	1	Washer, ET Lock (#10)
15	332-0607	1	Block, Terminal (12 Place) (TB21)	35	308-1052	1	Switch, Rotary (Voltmeter/Am meter (Includes Handle) (S21)
16	338-2278	1	Harness, AC Control Door (Includes Terminal Block)	36	815-0875-02	3	Screw, Round Head Machine (M4 x 8mm)
			(19 Wire, 26") (TB21, GND to	37	308-1082	1	Handle, Rotary Switch
			GND, M21,22,23, S21, DS21,22)	38	338-3429	1	Harness, Terminal Block (9 Wire, 11") (Includes
17	322-0363	1	Light, Upper/Lower Indicator Scale (DS21,22)				Connector Plug and Sockets) (P2 to TB21)
18	305-0844	1	Regulator, Voltage	39	323-1644-02	1	Plug, Connector (P2)
19	815-0905-08	4	Screw, Cross Recessed	40	323-1648	9	Socket, Contact
			(#10-23 x 7/8")	41	338-3772	1	Harness, AC Aux
20	332-1043	1	Jumper	42	323-1647	AR	Pin, Terminal
21	350-1222	1	Resistor Assy	43	323-1644-01	1	Housing, Plug
22	320-1688-01	1	Breaker, Circuit				

## **DC Detector Control** (Type III) (Spec A) 38. O 116 24

## DC Detector Control (Type III) (Spec A)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	300-4323	1	PCB, Gauge	21	526-0196	2	Washer, Flat (7/32 x 7/16 x 1/8)
2	319-2100-01	1	Cover, Control Box	22	300-2898	1	Board, Time Delay Start/Stop
3	319-2105	1	Box, Control				/Preheat (12V)
4	319-2491-03	1	Panel, Control	23	815-0550	8	Screw, IT Round Head Machine
5	800-2034-01	6	Bolt, Hex Head Cap (M6 x 1 x 20mm)				Cross Recessed (#6-32 x 3/8")
6	860-2006	3	Nut, Hex (M5 x .8)	24	870-0183	4	Nut, ET Hex (#6-32)
7	895-0337	1	Gasket, Hinge	25	193-0351	1	Gauge, Water Temperature
8	895-0336	2	Gasket, Side				(M12)
9	895-0338	1	Gasket, Top	26	193-0466	1	Gauge, Oil Pressure (M11)
10	895-0339	1	Gasket, Cover	27	302-1641	1	Meter, Volt (12V) (M13)
11	853-0008	5	Washer, ET Lock (#10)	28	302-0885	1	Meter, Running Time (M14)
12	332-3239	1	Block, Terminal	29	870-1220	4	Nut, ET Hex (#4-40)
13	332-3244	1	Gasket, Terminal Block	30	308-1011	1	Switch, Run/Stop/Remote (S12)
14	870-0131	6	Nut, ET Hex (#10-32)	31	308-1010	1	Switch, Reset/Lamp Test (S11)
15	813-0108	2	Screw, Round Head Machine	32	526-0049	13	Washer, Flat Brass (#10)
			Slotted (#10-32 x 1.5")	33	850-0030	5	Washer, Lock (#10)
16	526-0008	2	Washer, Flat (#10)	34	871-0010	10	Nut, Hex Brass (#10-32)
17	300-4296	1	Board, Engine Monitor	35	526-0409	8	Washer, Nylon
			(12V, 12 Light)	36	526-0422	6	Washer, Nylon Retainer
18	322-0004	1	Lamp (12V) (DS11)	37	870-2195	2	Nut, Captive Floating
19	322-0361	1	Light, Panel (DS11)	38	895-0353	2	Gasket, Cover (Sides)
20	322-0360-01	1	Lamp Assy (12V, 12 Light)	39	526-0002	1	Washer, Flat (#6)
			(A12) (Includes the Following	40	853-0005	1	Washer, ET Lock (#8)
			Indented Lights)	41	186-6365	1	Harness, Engine
	322-0238		Run (Green)				
	322-0241		Pre Lo Oil Pres (Amber)				
	322-0240		Pre Hi Eng Temp (Amber)				
	322-0108		Lo Oil Pres (Red)				
	322-0109		Hi Eng Temp (Red)				
	322-0111		Overspeed (Red)				
	322-0107		Overcrank (Red)				
	322-0167		Blank (Amber)				
	322-0110		Lo Eng Temp (Amber)				
	322-0113		Lo Fuel (Amber)				
	322-0283		Switch Off (Red)				
	322-0136		Blank (Red)				
	322-0168		Blank (Amber)				

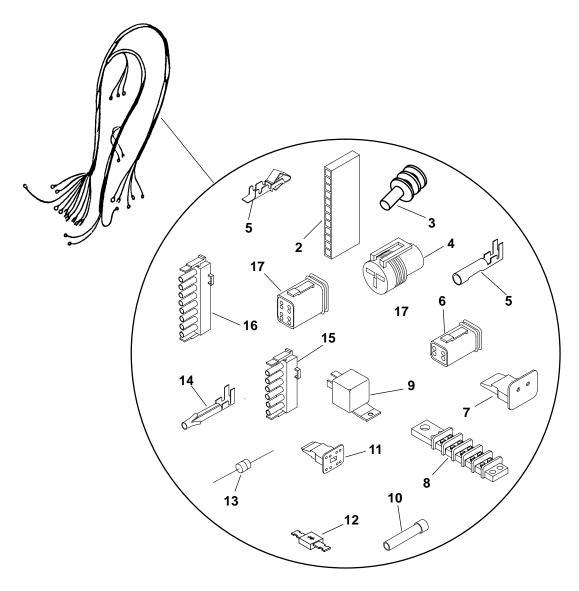
## DC Detector Control (Type III) (Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0388	8	Screw, Pan Head Cross Recessed (#6-32 x 1/2")	14	193-0351	1	Gauge, Water Temperature (M12)
2	300-5098-01	1	Board, PC Sensor Board (A27)	15	302-1641	1	Meter, Voltage (M13)
3	821-0004	3	Screw, Hex Washer Head Self-	16	301-9055-01	1	Door, DC Control
			Locking (#10-32 x 5/16")	17	517-0301	1	Plug, Hole (Fits 2" Hole)
4	300-4296	1	Board Assy, PC Engine	18	517-0131	1	Plug, Hole (Fits 7/8" Hole)
			Monitor (Includes Fuses) (A11)	19	302-2002	1	Meter, Hour (M14)
5			Fuse	20	870-0183	4	Nut, ET Hex (#6-32)
	321-0307-03	2	5 Amp (Tan) (F4, F5)	21	815-0385	4	Screw, Round Head Machine
	321-0307-06	1	15 Amp (Light Blue) (F3)				(#6-32 x 1/2")
	321-0307-07	2	20 Amp (Yellow) (F1, F2)	22	322-0360-01	1	Light Assy, Indicator (Includes
6	870-0131	1	Nut, ET Hex (#10-32)				Wiring Harness and Connector
7	853-0008	1	Washer, ET Lock (#10)				Housing) (A12)
8	332-0052	2	Clip, Wire	23	322-0369-01	1	Light, Replacement Indicator
9	322-0004	1	Bulb, Panel Replacement Light	24	338-3252	1	Harness, DC Control Door
10	322-0361	1	Light, Panel (DS11)				(Includes Connector Housing
11	308-1010	1	Switch, Rocker (Lamp Test/Reset Panel Lamp) (S11)				and Contact Pins) (22 Wire, 32") (A11J4 to GND,
12	308-1011	1	Switch, Rocker (Run/Stop/Re mote) (S12)	25	323-1308	1	M11,12,13,14, S11,12, DS11) Housing, Connector (J4)
13	193-0466	1	Gauge, Oil Pressure (M11)	26	323-1302	11	Pin, Contact

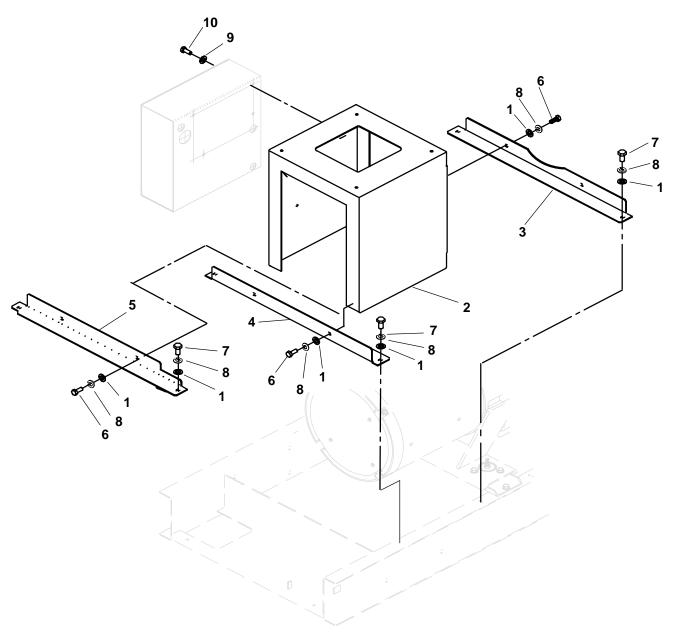
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# Detector Control Engine Harness (Begin Spec B)



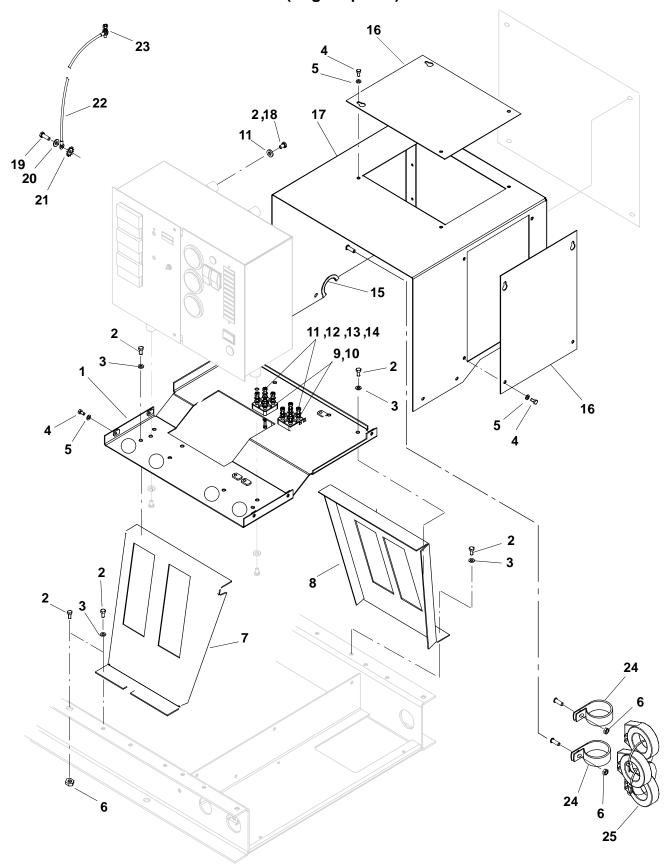
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	338-3739	1	Harness, Engine	9	307-2817-01	2	Relay (12V)
1	323-1302	1	Contact, Socket	10	323-1591	4	Connector, Plug
2	323-1374-12	1	Connector, Housing (J3)	11	323-1543	AR	Wedge, Plug (P2) (8 Pin)
			(12 Pin)	12	357-0030	AR	Rectifier, Silicon (6A, 400V)
3	323-1708	1	Seal, Cable	13	351-1599-42	1	Resistor (24 Ohms, 5W)
4	323-1765	1	Connector, Housing (4 Pin)	14	323-1200	AR	Socket, Contract
5	323-1709	1	Socket, Terminal	15	323-1304	1	Housing, Connector (6 PI)
6	323-1546	1	Plug (4 Pin)	16	323-1306	1	Housing, Connector (8 PI)
7	323-1548	1	Wedge, Plug (4 Pin)	17	323-1541	1	Plug, 8 Pin (P2)
8	332-3276-01	1	Bracket Assy, Terminal (T26)				

## Detector Control Mount (Type III) (Spec A)(GNAA, GNAB)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-6975	8	Washer, Flat (M8)	6	186-6668	4	Screw, Hex Head Cap
2	186-6878	1	Saddle, Detector Box Mounting				(M8 x 1.25 x 16mm)
3	186-6871	1	Rail, Front Detector Box	7	186-6064	4	Screw, Hex Head Cap
			Support				(M8 x 1.25 x 20mm)
4	186-6872	1	Rail, Rear Detector Box Support	8	186-6529	8	Washer, Spring (M8)
			(Use W/Single Wall Fuel Tank)	9	186-6623	4	Washer, EIT (5/16")
5	186-6879	1	Rail, Rear Detector Box Support (Use W/Dual Wall Fuel Tank)	10	186-6622	4	Screw (M8 x 1.25 x 16mm)

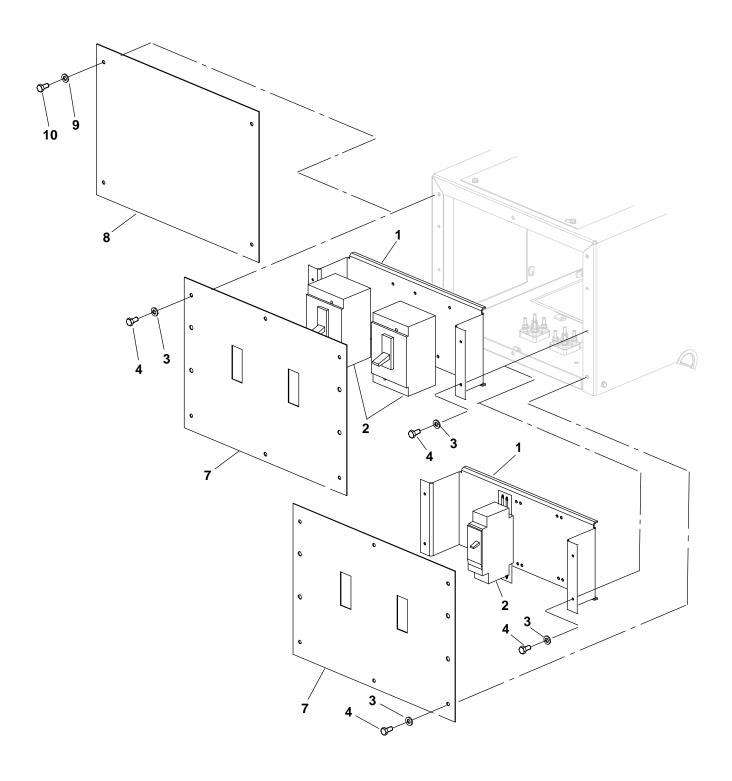
## Detector Control Mount (Type III) (Begin Spec B)



## Detector Control Mount (Type III) (Begin Spec B)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3613	1	Bottom, Control Box	13	186-7076	2	Washer, Flat (M5)
2	186-6064	8	Screw, Hex Head Cap (M8 x 1.25 x 20mm)	14	800-2004	2	Screw, Hex Head Cap Thread Cutting (M5 x .8 x 1mm)
3	186-6975	8	Washer, Flat (M8) (Rear	15	186-7077	1	Edging (3")
			Mounted Brackets)	16	319-3316	2	Cover, Control Housing
4	186-6037	14	Screw, Hex Head Cap	17	319-3612	1	Top, Control Box Housing
			(M6 x 1 x 12mm)	18	800-0024	4	Screw, Hex Head Cap
5	186-6974	14	Washer, Flat (M6)				(5/16-18 NC x 1/2")
6			Nut, Hex (M8 x 1.25)	19	186-7075	1	Screw, Hex Head Thread
	186-6274	2	For Rear Mounted Brackets				Cutting (5/16-18 x 1/2")
	186-6274	4	For Front and Middle	20	186-7086	2	Washer, Flat (3/8")
			Mounted Brackets	21	862-0003	2	Nut, Hex (3/8-16)
7	186-7113	1	Bracket, Control Saddle	22	186-6339	1	Cable, Ground
8	186-7114	1	Bracket, Control Saddle	23	862-0001	1	Nut, Hex (1/4-20)
9	186-6597	9	Washer, Spring Lock (M6)	24	186-7080	2	Clamp, Tubing (1-1/4")
10	186-6209	9	Nut, Hex (M6)	25			Transformer
11	186-6187	21	Washer, Flat (5/16")		302-2034-02	3	W/50-100A Ammeter
12	332-3249	2	Block, Terminal		302-2034-03	3	W/15-30A Ammeter

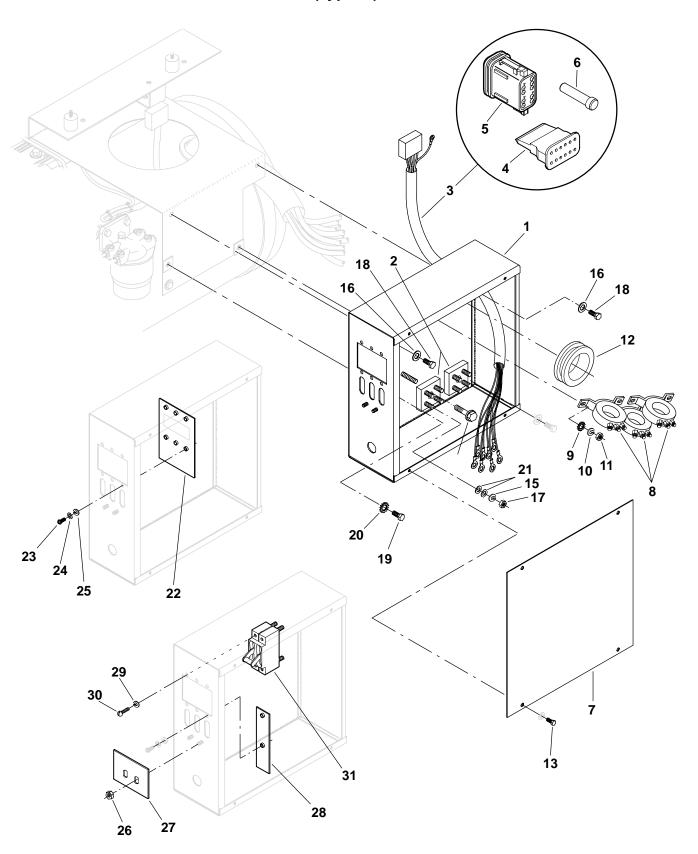
## Detector Control Circuit Breaker (Begin Spec B)



#### Detector Control Circuit Breaker (Begin Spec B)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Bracket, Mounting	5			Nylock (M4 x 0.7)
	319-4135	1	2 Pole CB		186-6831	4	Single CB
			3 Pole CB		186-6831	8	Dual CB
	319-3825	1	480V Sets	6			Screw, Hex Head Cap
	319-3643-02	1	600V Sets				(M4 x 0.7 x 10mm)
2			Breaker, Circuit		186-7079	4	Single CB
			2 Pole, 240V		186-7079	8	Dual CB
	320-2005-11	1	10A	7			Panel, CB
	320-2005-10	1	15A				W/Circuit Breaker
	320-2005-09	1	20A				2 Pole
	320-2005-08	1	25A		319-3826	1	Single CB
	320-2005-07	1	30A		319-3827	1	Dual CB
	320-2005-06	1	35A				3 Pole CB
	320-2005-05	1	40A				480V Sets
	320-2005-04	1	45A		319-3826	1	Single CB
			3 Pole		319-3827	1	Dual CB
			480V				600V Sets
	320-2009-11	1	15A		319-3640-02	1	Single CB
	320-2009-10	1	20A		319-3641	1	Dual CB
	320-2009-09	1	30A	8	319-3611	1	Cover, Control Housing
			600V				(W/O Circuit Breaker)
	320-1959-21	1	20A	9	186-6973	4	Washer, Flat (M6)
	320-1959-20	1	30A	10	186-6037	4	Screw, Hex Head Cap
3	186-6974	10	Washer, Flat (M6)				(M6 x 1 x 12mm)
4	186-6037	10	Screw, Hex Head Cap (M6 x 1.0 x 12mm)				

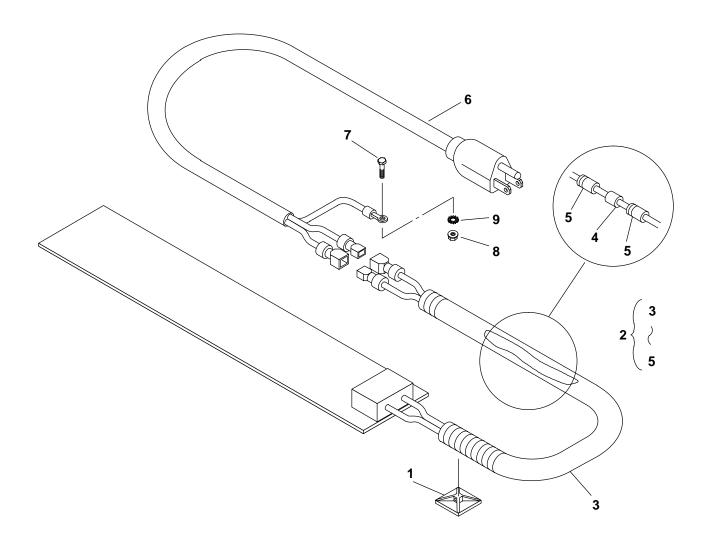
# Output Box Detector Control (Type III)



## Output Box Detector Control (Type III)

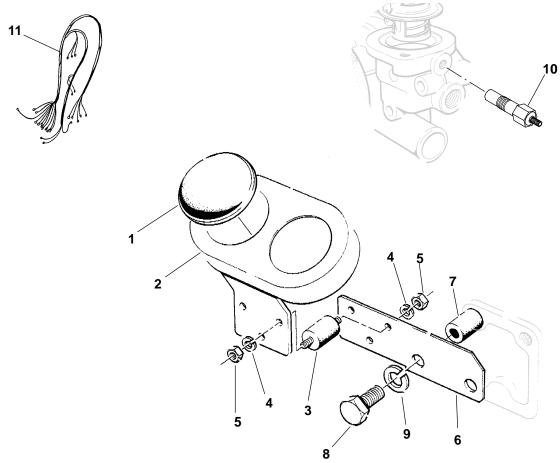
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3102	1	Panel, Control Box Side	31			Breaker, Circuit
2	332-3249	2	Block, AC Terminal				2 Pole
3	338-2990	1	Harness, AC Generator		320-1841-02	1	15A
			(Includes Wedge and Plugs)		320-1841-03	1	20A
4	323-1583	1	Wedge, Plug (12 Pin)		320-1841-04	1	25A
5	323-1582-02	1	Plug (12 Pin)		320-1841-05	1	30A
6	323-1591	11	Plug, Connector		320-1841-06	1	35A
7	319-3131	1	Cover, Control Box		320-1841-07	1	40A
8	302-1984-03	3	Transformer, Current		320-1841-08	1	45A
9	856-0006	1	Washer, EIT Lock		320-1841-09	1	50A
10	850-2056	6	Washer, Spring Lock		320-1841-10	1	55A
11	860-2057	6	Nut, Hex		320-1841-11	1	60A
12	508-1057	1	Grommet		320-1841-12	1	65A
13	821-6002-03	4	Screw, Hex Head (M6 x 0.8)		320-1841-13	1	70A
14	821-2023	2	Screw, Lock Flange		320-1841-14	1	75A
15	186-6597	8	Washer, Lock (M6)		320-1841-15	1	80A
16	186-6618	2	Washer, Spring (M8)		320-1841-16	1	85A
17	186-6209	8	Nut, Hex (M6 x 1)		320-1841-17	1	90A
18	186-6668	2	Screw, Hex Head Cap		320-1841-18	1	95A
			(M8 x 1.25 x 16mm)		320-1841-19	1	100A
19	186-6622	1	Screw, Hex Head Cap				3 Pole
			(M8 x 1.25 x 16)		320-1827-02	1	15A
20	186-6623	1	Washer, EIT (5/16")		320-1827-03	1	20A
21	186-6591	16	Washer, Flat (M6)		320-1827-04	1	25A
					320-1827-05	1	30A
With	out Circuit Brea	aker, Use			320-1827-06	1	35A
22	319-2184	1	Plate, Cover		320-1827-07	1	40A
23	186-6488	6	Screw (#6-32 x 3/8")		320-1827-08	1	45A
24	186-6663	6	Washer, Flat (#6)		320-1827-09	1	50A
25	186-6428	6	Washer, Lock (#6)		320-1827-10	1	55A
					320-1827-11	1	60A
	Circuit Breake				320-1827-12	1	65A
26	186-6913	2	Nut, Lock (M6 x 1)		320-1827-13	1	70A
27	186-6386	1	Cover, CB		320-1827-14	1	75A
28	319-2185	1	Plate, CB Cover (Use With		320-1827-15	1	80A
		_	2 Pole CB Only)		320-1827-16	1	85A
29	186-6428	6	Washer, Lock (#6)		320-1851-01	1	10A
30	186-6488	6	Screw (#6-32 x 3/8")		320-1851-02	1	15A
					320-1851-03	1	20A
					320-1851-04	1	25A
					320-1851-05	1	30A

# **Control Heater**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USE	PART DESCRIPTION
			Kit, Control Heater	4	357-0114	1	Rectifier, Power
	300-4438	1	120V (Includes Parts	5	332-1789	2	Splice, Window (18 Gauge)
			Marked *)	6			Cable, Control Heater
			240V		335-0173	1	* 120V
	300-4439-00	1	W/O Cord (Includes Parts		335-0173-01	1	# 240V
			Marked +)	7	800-0024	1	#*Screw, Hex Head Cap
	300-4439-01	1	W/Cord (Includes Parts				(5/16-18 x 3/4)
			Marked + and #)	8	870-0257	1	#*Nut, Self Locking Hex
1	332-3338	2	+*Mount, Cable Tie				(5/16-18)
2			Heater Assy, Control (Includes	9	856-0008	2	#*Washer, Lock EIT (5/16)
			Heater, Rectifier and Splice)				
	300-4514-01	1	* 120V				
	300-4515-02	1	+ 240V			— -	V Control Heater Kit.
3			Heater, Control (120V)	+ -		in 240'	V Control Heater Kits W/ and
	333-0550-01	1	120V		W/O Cord.		
	333-0550-02	1	240\/	# —	Parts Included	in 240'	V Control Heater Kit W/Cord.

# Gauge Panel Manual (Type I) Remote (Type II)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	193-0475	1	Kit, Temperature/Voltmeter	5	186-7206	6	Nut
1			Meter/Gauge	6	186-7047	1	Bracket, Mounting
	186-7029	1	Gauge, Temperature	7	186-7033	2	Spacer
	186-7034	1	Meter, Volt	8	800-2070	2	Screw, Hex Head Cap
2	186-7048	1	Panel, Double Gauge	9	186-6671	2	Washer, Spring (M10)
3	186-7060	3	Mount, Flexible	10	186-7032	1	Sender, Temperature
4	186-7042	6	Washer, Spring	11	186-7035	1	Harness, Wiring

#### **Gasket Sets**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			+Set, Decarbonizing Gasket				Set, Overhaul Gasket (Includes
			(Includes Parts Marked *)				all listed in Decarbonizing Set
	186-6211	1	GNAA				Plus Parts Marked +)
	186-6485	1	GNAB		186-6213	1	GNAA
1	186-6210	1	GNAC		186-6487	1	GNAB
			asket, Cylinder Head Cover		186-6212	1	GNAC
	186-6117	2	GNAA		<del>-</del>	7	#+Gasket, End Cover (Cork)
	186-6117	3	GNAB		186-6147		+Gasket, End Cover (Paper)
1	186-6117	4	GNAC		400 0040		+Gasket, Crankscase Door
			*O'Ring, Cylinder Head Cover		186-6010	1	GNAA
	186-6028	4	GNAA		186-6405	1	GNAB
	186-6028	6	GNAB		186-6012	1	GNAC
1	186-6028	8	GNAC		186-6017	1	+Gasket, Fuel Lift Pump
	400 0000	•	*Gasket, Inlet Manifold		100 0005		+Shims, Main Bearing Housing
	186-6202	2	GNAA		186-6065	1	.38mm
	186-6202	3	GNAB		186-6066	1	.50mm
1	186-6202	4	GNAC		186-6129	2	+O'Ring, Speed Control
	400 0000		*Gasket, Exhaust Manifold		186-6131	1	+Washer, Speed Control (M5)
	186-6206	2	GNAA		186-6163	6	+Washers, Fuel Filter
	186-6206	3	GNAB		400.0000		+Seal, Oil
٦	186-6206	4	GNAC		186-6063	1	Flywheel End
	100 0100	4	*Rubber, Bottom Sealing Tube		186-6148	1	Gear End
	186-6100	4	GNAA				
	186-6100	6	GNAB	# -	Discard. Not	t Used on	GN Series
	186-6100	8	GNAC				arbonizing Gasket Set.
	186-6102	4	*Rubber, Top Sealing Tube GNAA				rhaul Gasket Set.
	186-6102	4	GNAB				
	186-6102	6 8	GNAC				
	100-0102	O	*Washer, Sealing Tube Rubber				
-	186-6101	4	GNAA				
	186-6101	6	GNAB				
	186-6101	8	GNAC				
	100-0101	U	*Washer, Injector (No Hole in				
			Center)				
-	186-6173	2	GNAA				
	186-6173	3	GNAB				
	186-6173	4	GNAC				
	-		#*Washer, Injector (Hole in				
			Center)				
	_	_	#*Seal, Valve Stem				
			*Seal, Valve Stem				
1	186-6257	4	GNAA				
	186-6257	6	GNAB				
	186-6257	8	GNAC				
	186-6180	1	*Gasket, Water Pump				
	186-6184	2	*O'Ring, Water Pump				
	186-6182	1	*Gasket, Water Pump Mounting	3			
			Plate	-			
1	186-6190	1	*Gasket, Thermostat Housing				

# Labels

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	098-6195	1	Label, Caution				Label, Reconnection Diagram
			Label, Control Panel		098-7356	1	Spec A
			(Start/Run/Off)				Begin Spec B
	186-6308	1	Manual		098-7356	1	Manual/Remote Control
	186-6309	1	Remote		098-7356-01	1	Detector Control
	098-5347	4	Label, Danger (Hazardous		098-7364	1	Label, Sealed Battery
			Voltage		098-7548	1	Label, Switch
	098-7553	1	Label, Hourmeter		098-2304	1	Label, Warning (Voltage)
	098-6139-08	2	Label, Logo		098-4732	1	Label, Warning (Automatic Start
	098-6304	1	Label, Loose Leads		098-4798-01		Label, Warning (Rotating Parts)
			Label, On/Off/Start Switch		098-5759	1	Label, Warning (Backfeed
	186-6302	1	Manual				Utility)
	186-6309	1	Remote				Label, Warning (Skid Lift)
	098-7554	1	Label, Phase Selection		098-5822-01	1	GNAB
					098-5822-01	2	GNAC
					098-6074-02	1	Label, Warning (Operation, Maintenance, Service Risk)
					098-7367	1	Label, Oil/Ground Drain- Made In England
					098-5387	2	Label, Voltage Disonnect

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